University of Alberta

Shifting the Professional Knowledge Landscape:
Professional Development and Assessment for Learning

by

©

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Dedications

This dissertation is dedicated to the memory of my dad, Denis Adamson, I thank you for the love and the care and the stories you told.

To mom, Mavis Adamson, your strength, caring and love continue to be a blessing to me.

My love and appreciation to Yasu, your inspiration, encouragement and support have meant more to me than words can express, thank you.

To our children, thank you for everything.

To my school children, I sincerely thank all of you for being such wonderful teachers.

I thank my Heavenly Father in the name of His Son.

ABSTRACT

Assessment for Learning is about the collaborative curriculum-making that occurs in the midst of students' and teacher's personal practical knowledge; it is about honouring students' knowledge, teachers' knowledge, and the knowledge composed collaboratively; and it is about positioning students quite differently in relation to the teacher and in relation to the negotiated curriculum. Assessment for Learning is collaboratively assessing what goes on in the classroom, providing feedback to students and teachers, using the feedback from assessment to inform future happenings, and informing teaching and learning outside the classroom.

District leadership began negotiating the introduction of Assessment for Learning to schools in the 2003-2004 school year. Accompanying the introduction of Assessment for Learning, there was a shift in the professional knowledge landscape from a place "littered with imposed prescriptions" (Clandinin & Connelly, 1998, p.151) to a place where teachers' personal practical knowledge was honoured as they presented their perspectives based on curriculum expertise and understanding of the classroom. The shift, embracing a novel approach to professional development and encouraging commitment from teachers, students, and administration in adopting Assessment for Learning, led to a school's transformation.

This is the story of that school's transformation seen through the eyes of three of its teachers. It tells of negotiations among teachers, students, and administration; involvement of students in learning; teachers' and students' successes; challenges; heavy workloads; management of heavy workloads; and tensions among teachers, students, and administration. This is also the story of transformation of a teacher's practice, how he

learned from his students, how they puzzled him, how they made him wonder, and how they encouraged him to attend to the puzzling. It tells of his journey with his students and with Assessment for Learning, to a discovery of curriculum and to a place where teachers' knowledge, students' knowledge, and the knowledge composed collaboratively were honoured. Finally, this is the story of the shift in a school district's approach to professional development. Specifically, how the professional knowledge landscape shifted in order to allow a different approach to teachers' and students' teaching and learning through collaboration.

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CHAPTER 1. STORIES OF TEACHING AND LEARNING

Assessment for Learning is about the collaborative curriculum-making that occurs in the midst of students' and teacher's personal practical knowledge; it is about honouring students' knowledge, honouring teachers' knowledge, and honouring the knowledge composed collaboratively; and, lastly, it is about positioning students quite differently in relation to the teacher and in relation to the negotiated curriculum. Assessment for Learning is collaboratively assessing what goes on in the classroom, providing feedback to students and teachers, using the feedback from assessment to inform future happenings in the classroom, and to inform teaching and learning outside of the classroom.

District leadership began negotiating the introduction of Assessment for Learning to district schools in the 2003-2004 school year. A shift in the professional knowledge landscape, a novel approach to professional development (PD), and commitment from teachers, students, and administration in embracing Assessment for Learning led to a school's transformation.

This is the story of that school's transformation seen through the eyes of three of its teachers. This is also the story of the transformation of a teacher's practice, how he taught his students, how he learned from his students, how they puzzled him, and how they made him wonder. Finally, this is the story of the transformation of a school district's approach to PD—specifically, how the professional knowledge landscape shifted in order to allow a different approach to teaching and learning through collaboration.

Becoming a Teacher

> One of the starting points for narrative inquiry is the researcher's own narrative of experience, the researcher's autobiography. This task of composing our own narratives of experience is central to narrative inquiry. (Clandinin & Connelly, 2000, p.70)

My starting point occurred in the late 1990s. I was working in the natural resource sector and was offered the opportunity to be a volunteer teacher. I accepted the opportunity and loved every single minute of the experience. When I was offered a second assignment, I immediately accepted it. In the time between the two assignments I often thought of becoming a teacher but I continued to come up with reasons why I couldn't leave my career and its rewards. I had a child beginning university, one in high school, one in junior high, and one in elementary. How could I leave my job?

The Teachers We Are ... The Life We Lead

Ultimately, my family gave me the support and courage I needed to quit my job and enroll in a Bachelor of Education program. The member of my family who had the greatest impact and gave me the strongest push to become a teacher was my daughter Sarah. Sarah battled through the first 2 years of her life, spending most of the time in hospital, undergoing operations, for observation after suffering severe seizures, and treatment for the pneumonia and other difficulties which came about because of respiratory problems. In addition to her medical conditions, Sarah suffered some brain damage during birth. In spite of her challenges, Sarah made remarkable progress over the next 3 years. She began to walk and talk and her health began to improve. Although she was considered to be 2 or 3 years behind normal development, her achievements were incredible to us.

Sarah went to a kindergarten for children with special needs. She continued at the same school in a Grade1/2 split class. Sarah and her classmates were segregated for most of the school day and allowed to be with the school's general population for art, music, and at lunch time. One of the greatest difficulties that Sarah and her classmates had to overcome was their speech delay. Many of the children were non-verbal and some were only just beginning to talk. The school's speech therapist worked with the children. She also coached and encouraged their teachers, aides, and parents so they could help. Because of everyone involved, the children began to string two or three words together. Sometimes the words were not very well formed but, to us, it was beautiful music.

Unfortunately, the first round of government cutbacks came in the mid-80s, one of the first programs to go was speech therapy. The teacher and aides did their best to continue to provide speech therapy but it wasn't enough. Our children became frustrated, they were not being challenged—their progress was hindered.

Without the constant practice and guidance from the speech therapist, Sarah's ability to communicate was severely limited. She began to fall even further behind. When she failed to make people understand or when she could not express herself, she bit the back of her hand in frustration. Twenty years later, she has two bite shaped scars on the back of her hand.

Parents banded together to try and persuade the school district to reinstate speech therapy, to no avail. The teacher and aides worked, on their own time, with the school district's one remaining speech therapist. The speech therapist did not have the time to work one-on-one with the children. Eventually, we enrolled Sarah in another school district where speech therapy was limited but still a part of her school day. At this new school, teachers and aides showed the same level of dedication as Sarah's previous teachers and aides; they went out of their way to help our children, particularly with their speech. They consulted the speech therapist and collaborated to find ways to help the children. Because of their dedication and because our children had a great desire to learn and to communicate, the teachers and aides had a massive impact. Many years later, we jokingly tell Sarah that she talks too much. She talks too much largely because of the hard work and know-how of her elementary school teachers and aides.

I thought of their dedication and my admiration for those individuals as I was contemplating whether to leave my job. In so many ways, they ensured children's voices were heard. Their achievements with the children were remarkable and I was more than a little envious of the satisfaction their work gave them. It made my work in industry seem insignificant by comparison. We sometimes overwork phrases like "make a difference" when we describe the impact that teachers have, but after seeing the impact of their work from the perspective of a parent I wanted to make that kind of difference. With the help of my family, I quit my job and returned to university.

Beginning to Teach, Beginning to Understand

I rushed through my education degree and, immediately after graduation, was fortunate to be offered a full time position teaching high school science. I was determined to communicate and connect with my students, and to give them a voice in our classroom. During my parent volunteer times at Sarah's school, I marveled at how her teachers worked at forming a connection with students. The teachers told stories of their outside-of-school lives. It encouraged Sarah and her classmates to share their outside-of-school stories. As they visited each others' worlds through their stories, strong bonds began to form. Just as importantly, it helped Sarah and her classmates to belong to their classroom and it gave them a voice in their classroom. Years later, in my first Narrative Inquiry course, Sarah's classroom, classmates, teachers, my volunteer time, my first teaching position, my first students, and all our stories came back to me as I read:

> In understanding ourselves and our students educationally, we need an understanding of people with a narrative of life experience, of which the school is only a part. Life's narratives are the context for making meaning of school situations. It is no more possible to understand a child as only a student than it is to understand each of ourselves as only a teacher. We are that, but we are many other things as well. Indeed the kind of teacher that we are reflects the kind of life that we lead. The same may be said of our students. (Connelly & Clandinin, 1988, p. 27)

As I began my teaching career, I found communicating and connecting relatively easy. My students were interested in my world and background and, by letting them in I found they were enthusiastic about sharing their worlds with me. I quickly noticed that a mental break was beneficial after about thirty or forty minutes of class time, when my students would become a little less attentive and begin asking questions off topic, maybe about my family or what I had done over the weekend. Initially, I was reluctant to entertain such diversions away from the subject matter. I think it was a fear of digressing and not completing the mandated curriculum. Over the first semester or two I gradually allowed my students to pursue their questions at the half way point of the class and we typically spent 5 or 10 minutes exploring each others' worlds. I found it refreshing. It became easy to relocate my students within their lesson after the refreshment.

Of course, I was the benefactor. My students always had such wonderful stories to tell. Via their diverse backgrounds, they transported me to many parts of the world and allowed me to be among many different cultures. I wasn't the only member of their audience. They told their stories to their classmates, taught each other about their backgrounds, and created a warm and friendly atmosphere in our classroom. They were doing my job for me. As the excerpt from Connelly and Clandinin (1988) suggested, I gained a greater understanding of my students personally and educationally from their lived stories.

The communication, connection, and understanding in my classroom encouraged my students to tell me what was needed to help them progress in their school journey. Many of them wanted help sessions outside of the regular classroom times. With the help of my students, I instituted lunch time tutorials once or twice per week and soon expanded them to every day. On many occasions, conversations veered away from chemistry or physics to home, friends, college, university, and careers. Many Grade 11 and 12 students found it difficult to decide what they were going to do with the remainder of their lives when they had so little information and experience on which to base their decisions. When it was time for Grade 12 students to apply to post-secondary institutions, receive conditional acceptances, and eventually permission to register, I provided guidance in scheduling and timetabling courses and programs.

After successfully tackling diploma exams and entering university and college, many of my students maintained contact with me via e-mail or personal visits to school. For instance, Paula[1], a student from my first high school, regularly sent updates of her university marks and requested comments on her academic and career goals. I used Paula's stories and those of other former students to counsel students who were not sure what to do after high school.

When former students visited me they invariably thanked me for the guidance I provided, for pushing them to complete their courses, and for demanding extra effort from them each day during class and each week as they completed out-of-class assignments. I remember a little speech that one of my most successful students prepared when he visited me at the end of his first year at university. He first of all thanked me and then went on:

> Mr. A. sometimes we thought you were too hard on us, making us work so hard. We sometimes thought you were a (swear word). But we look around at our

---

[1] Paula is not her real name. Pseudonyms are used for the individuals whose stories I have told throughout this work.

> classmates at uni and we see how some of them are struggling. We don't find things easy, but we are managing and we are getting the marks. By being tough on us, as you sometimes were, you showed us how to handle things. Thank you so much. (Personal communication, June, 2000)

It was satisfying to hear how much my former students appreciated the work that I did and that we did together. Strangely, I think my research puzzle and my wondering began in the midst of that satisfaction. I knew there was something missing, something I was not doing, something that my students needed in order to better cope with life after high school and life at college or university. At the time I knew it was something to do with their knowledge of their own learning or, more accurately, their lack of knowledge of their own learning. It also had something to do with how well students managed the obstacles that appeared in their paths to success, how they coped with or learned from the occasional failures, and how they approached learning opportunities. Jasbir's story illustrates some of these difficulties and also provides some insight into my puzzling.

Jasbir's Story

Jasbir, a very capable and adaptable individual, was in the first diploma class I taught. He was a very likeable and confident, even loud, individual. He wasn't noisy loud, at least not most of the time. He just had a more than noticeable personality, way of dressing, and way of being. According to Jasbir, his parents were crazy about his education and being successful in his future career. At high school, he didn't have to extend himself too much to achieve success. When he occasionally slacked off, he received an abrupt reminder from me which only rarely failed to work. On those occasions, even a joking threat to call his parents would ensure that homework and other assignments were submitted on time, sometimes even early. His parents were ecstatic when he was accepted in the university's engineering program; the entrance requirements were particularly high that year. They had a family gathering and celebrated his success. However, the success did not last; at the end of his first year, he showed me his marks, he ashamedly told me he was dropping out of engineering and going into science. I suggested that entering the faculty of science was not something to be ashamed of. Tears welled in his eyes; no longer loud, he informed me that he was on academic probation and that he didn't have the courage to tell his parents. Jasbir's academic decline continued as his average dropped well below 50%. During his second year, things worsened. He spent some time with me at school where I helped him with his assignments, but it was not working. After his second year at university he was asked to take a year off. He failed many of his courses. He still hadn't plucked up enough courage to talk to his parents.

He eventually re-entered university and found a program and courses to which he was better suited. The last time I saw him he was almost Jasbir again, his outlook was more mature as he revealed his plans for the future. He was reluctant to talk about his relationship with his parents and whether or not he came clean about university. I suspected he hadn't. My suspicions were confirmed when fear, guilt, and shame crept across his face in silent answer to my question "So, you told your parents what you're doing?"

Jasbir's story added to the puzzle. It made me wonder how Jasbir, doing so well at school and performing so well in the curriculum we made together, could be such a different student at university. What went wrong? What errors were made? What did we miss?

Walid and Ali, Rahim and Fahim

Variations on this story spiraled year after year. Walid and Ali were good friends whom I met as I embarked on my second year of teaching high school. They both did well in my diploma class, achieving honours, and easily exceeding the minimum requirements for entrance to the college pre-engineering program. They both worked very hard and tackled obstacles in one of two ways—either by working harder or asking for help in formulating alternative strategies to deal with the problems. I cannot go as far as to say that they welcomed obstacles, but they certainly expected them and used their difficulties as learning experiences. Neither Walid nor Ali were overly confident as they entered their college program. In fact, both were fearful that they would not have the reserves of energy to deal with the anticipated hard work. At the end of their first college semester, they came to see me at school. Both looked physically drained. They had given up their part-time jobs and still didn't have time to do everything necessary to keep up with their university work. However, their average after first year was in the 70s—they were surviving, achieving success, happy in their achievements, and very pleased with themselves. They told me it was a collaborative success. They had banded together with two or three other students to deal with the challenges before them. Not many years later, I repeated their story to my students as I emphasized the need to collaborate. Around the same time, I heard my colleagues telling of their successes through collaboration and demanding more time to collaborate.

One year later it was Fahim and Rahim. They stayed with me for 2 years, in Grade 11 and my diploma class the following year. They were high achievers and confident of their own abilities, but in different ways. Fahim was quietly confident, Rahim louder. Fahim worked hard, worked through his rare failures, and asked for help to re-strategize. Rahim became frustrated on the rare occasions he had to work extra hard. Although I didn't realize what he was doing until years later, he practiced avoidance when he came up against real difficulties. I occasionally gave him a break when he failed to hand in an assignment. I allowed him to get away with a "not handed in" or two. Both achieved the marks necessary to enter university, Fahim went to a pre-engineering year, Rahim took sciences. At the end of his first year, Fahim reported that, although exhausted, he was succeeding. Rahim, on the other hand, was devastated, having failed a calculus mid-term exam during first semester. The failure plagued him for the remainder of first semester and all the way through second semester. Marks in his other classes suffered and he contemplated dropping out of university.

Rahim and Fahim added to my wonders. What was the source of Fahim's success and Rahim's relative failure? Was it the strategies they were using? Did the strategies stem from a particular orientation towards learning? If it was their orientation to learning, who or what lead them to that orientation?

Teaching and Learning

Jasbir was one of my first high school students. The communication between Jasbir and I was two way and effective. There was an obvious connection. The same could be said for the relationship that developed with other students, Walid and Ali, Fahim and Rahim, for example. It didn't take them long to show me that although communication and connection were good beginnings that helped students achieve success, they were not enough to fully prepare students for life after high school. They also prompted my puzzling and wondering: I was helping students enter university and college by showing them how to leap through hoops that were entrance requirements, and I was also trying to prepare them for life after high school by teaching them to think, cope, and learn. There were some commonalities and some conflicts. The conflicts stemmed from what I saw as the two main objectives of my practice: post-secondary entrance and preparation for life after high school.

Around the same time, I began my post-graduate work. For obvious reasons, I was interested in how well students are prepared for their varied lives after high school and, particularly, how they cope with post-secondary education. I came across a series of extensive studies from Australian schools and universities in which teachers saw their primary role as getting students through exams and to university. The teachers also spoke of the real role of school as teaching students how to think and learn in ways that carry them beyond school. However, the goals of passing exams and getting to university were often seen as competing with the goals of teaching kids how to think and learn (MacDonald, Litchfield, & Litchfield, 2001). This work seemed to describe some of my puzzle. One teacher participant tried to explain and sum up the quandary his colleagues were in:

> Yes, we should be teaching kids to cope on their own, but, if we spend all that time on those skills, they are not doing their exams and being pushed along. They are not going to get there (university). At the end of the day, we are being judged by their (referring to parents) kids' success at school, not at university. (p. 4)

Leah and Karen were two students who helped me solve some of the puzzle. Although they were high school students, they were both wonderful teachers. They forced me to think differently about my teaching and led me to the most important part of the puzzle, student involvement.

Leah's Story and Karen's Story

Leah came into my life half way through my third year of teaching. Over the Christmas break, her family moved from the Maritimes to our city. Just before semester two began, I was called to see one of the school counselors and given a piece of paper with Leah's name on it and the words Asperger's Syndrome. I was told that Leah would be in my class, without an aide, and that she should be fully integrated.

As I returned to my classroom, I recalled my one and only undergraduate course on teaching children with special needs, Teaching Children with Exceptionalities. We ploughed through the course material: Introduction in weeks 1 and 2; mid-term week 6; projects due week 10; and final exam week 13. At the end of the course I was disappointed, although not in the instructor who was refreshingly honest. Her message was, "This course barely scratches the surface, when you begin your first teaching assignment, it will be up to you to discover the best way to modify your classrooms and your teaching to suit the needs of your students with special needs." My disappointment was due to my lack of know-how.

Before Leah came along, I had listened to my colleagues describe how they coped with children with special needs. I felt relieved that I didn't have the added burden of a child with special needs or with learning disabilities. What a truly horrible way to think. My mind raced back, almost 20 years, to the time when I was a parent of a student with special needs and I expected teachers to accept and teach my daughter alongside 20 to 30 other students. The interests of Sarah's teachers were of secondary concern as I fought for resources for her. Her teachers were pushed by administrators, pushed by parents, and self-propelled into providing the best care possible.

I talked to Leah's parents as soon as I could. They were not as pushy as I had been with Sarah's teachers; they were understanding and asked me to do my best. I still felt uncomfortable because I didn't know how to accommodate Leah. I contacted the school district's consulting services, searched the Web, and read. I wanted to begin with some understanding of Asperger's Syndrome. I needed some indication of what I could expect, how I would cope in the classroom, and how Leah would cope with me.

The information I gathered felt clinical, general, and sterile. What was it describing? It described some generalized, faceless, nameless student who displayed the characteristics of Asperger's Syndrome perfectly. It wasn't describing Leah, or was it? I didn't know[2].

I found Leah to be a capable student, but as the term progressed she began to experience difficulties and the stress began to tell. She struggled when dealing with changes. Crisis points came without too much warning. The recent changes that enveloped her life became too much for her. In a period of slightly over 2 months, she left her home of 16 years, started school in another province, entered a Grade 12 science program that many students consider one of the most difficult in high school, and dealt with course material that demanded taking the fundamentals of science and applying them to different and unpredictable situations. Another problem stemmed from the most important concept in chemistry, stoichiometry, which in her home province was taught differently. Leah found the changes overwhelming.

How did this play out in class? She became fixated on the two stoichiometric methods. In one class, we talked about the differences in the methods and the similarities in the outcomes. She seemed to have a good grasp and quickly became adept at using both. However, during the next class, she wanted to continue the discussion. She kept asking questions and blurting out comments that were totally out of place as we were moving away from the fundamentals and working on applications. Her fixation continued. I noticed rolling of eyes from a number of her classmates. I attempted to prevent any further comments by saying, "That is very important and we will go over it at lunch time during our regular tutorial." I had to repeat myself three or four times before Leah gave up. I mentally complimented myself for the successful use of the Teacher as a Broken Record strategy.

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[2] My searches told me that Asperger's Syndrome (AS) is generally regarded as the mildest and highest functioning end of the autism spectrum. It is believed to be a neurologically-based disorder of development, in which there are challenges in the areas of development, social relatedness and social skills, communicative language and behavioral characteristics involving repetition, inability to deal with change and intense perseverance. The literature suggested that most children and youth with AS can receive their education in a conventional classroom and generally benefit from doing so. Some reports suggested that children and youth with AS are prone to aggressive outbursts and violence. However, other reports indicated that the behavioral and emotional problems connected to their challenges cause severe frustration and this can result in some aggressive or violent behavior. And, the aggressive behavior, in an adolescent, may appear worse than it is because of the adolescent's lack of awareness of social standards (Bauer, 1996; Frith, 1991; Gagnon & Myles, 1999; Ghaziuddin, 2002; Safran & Safran, 2001; Siegel, 1996; Simpson & Myles, 1998).

During lunch time tutorial, I was prepared to discuss stoichiometry. Leah had a different agenda. I received a lecture. It must have been a good lecture because I can still remember most of it as if it was yesterday:

> I don't see why I can't use my stoichiometry to calculate things, you said it works just as well as your way so what's the point in using a different way if my way works just as well (she continued for five minutes without taking a breath, or so it seemed). And another thing you sound like a robot when you start repeating things three or four times, it sounds just stupid (so much for the "Teacher as Broken Record" strategy) and anyway who heard of a robot teaching chemistry, that's just stupid, you call yourself a teacher, you're a robot, repeating things three or four times, I'm going to tell the counselor about you, I'm going to tell her they don't have a teacher they have a robot, I don't mind but they don't want a robot (she disappeared down the hallway I heard the words "robot", "stupid" and "my way's just as good" repeated several times). (Personal communication, April, 2000)

Leah barged into her counselor's office and blurted out everything that had happened. The counselor tried to reason with her, but she became more and more agitated. Her mother was called, and Leah spent the rest of the day at home. She apologized when she returned to school the next day. It occurred to me that Leah's in-my-face lecture was informative as well as surprising. She made it quite clear that she wanted some involvement in her learning. Leah became frustrated because I wasn't ready to accept her involvement nor did I understand how she could become involved. Her lecture was the first part of my journey to understanding the puzzle. Was student involvement one of the missing key elements? If it was, my task was to figure out how to make student involvement work. A year or two later I looked back on this episode and wanted to thank Leah profusely for providing this insight into my puzzle. Student involvement became one of the pillars of my practice.

After Leah apologized for her outburst, I reminded her of our lunch time tutorials and asked her to attend, if she had the time. She did attend and initially she wanted to know what to expect in the weeks to come. Over the next few days, we gently pressed forward during tutorials. Some of her classmates were aware of Leah's challenges and volunteered to help. They discovered Leah's desire for a greater degree of involvement. After discovering what was to come, her next step was to take each topic and explain how it was taught and how she learned in her home province. Where there existed a difference in the teaching approaches, her classmates found their understanding of the concepts benefitted by looking from a different perspective. Leah worked her way into this routine and, over several weeks, became more settled. She began to show me how student involvement could work.

As events unfolded and as decisions were made, Leah was taken out of my class. Her progress was deemed to be limited in other subject areas; she was spending too much time on science and neglecting other areas. She was placed in a Grade 11 chemistry class. More change was forced on her and it proved too much for Leah. She left our school mid-way through second semester. I never saw her again. All she wanted and needed was some involvement in her own learning. When given the opportunity, she was prepared to show us how the involvement worked. Unfortunately, as a school, we were unprepared for her request and could not grant it. We failed her.

At the beginning of the next school year, Karen entered Grade 10 from one of our junior high feeder schools. On the second or third day of classes, Karen's mom asked for a meeting with her teachers. During the meeting, mom gave an overview of Karen's learning disability and presented each teacher with a brief article describing non-verbal learning disabilities (NLDs). Mom tried to explain where Karen was in her learning and asked to be kept informed of her progress and difficulties. We were also informed that, during class time, Karen would receive some help from a teaching assistant (TA). It was up to individual teachers to research and discover the best way to cope in the classroom. What did I find out?

During my search I came upon the story of Deborah Green who overcame the challenges of a NLD and became a language arts teacher. She likened her challenges, particularly those concerning social relationships, to a board game: Imagine, as a child, sitting down to play a board game. Everyone plays by the same rules and stays within certain boundaries. That is everyone except you because you are unaware of the rules and the boundaries. So you play by your own rules or rules that you think you should play by.

This carries on indefinitely game after game. Imagine, after a significant amount of time has passed, the growing discomfort of the other players as they try and communicate rules which you have difficulty in understanding. Frustrations build as the more knowledgeable players ask, “Why doesn’t she understand? What is wrong with her?” Imagine your own frustration as you realize there is something wrong but you don’t understand what. You hear words but you cannot decipher the speech inflections, the facial expressions, and the body language and you can only grasp the literal meaning. Your anxiety builds because you are being left behind, you try to catch up, your senses become overloaded, and your anxieties heighten. You obsessively focus on the one thing but it still doesn’t work. Then, all of a sudden, someone changes something. You have a very low tolerance to change. Your anxiety changes to panic, the very best you can do is withdraw from the game (Adapted from Green, 1999).

As a school staff, we were mostly concerned with Karen’s academic progress; we tended to overlook the significance of her social life and social interactions. To many teenagers, the main reason for their existence is to fit in. Karen fell short of the standards of the code of teenage law. She became the object of some ridicule and torment during her junior high school days. She shared stories of being constantly teased and ridiculed at her first junior high school. Her response to the teasing was bewilderment and a mounting anxiety. The torment became intolerable and Karen changed schools. For a while, the new school was bearable. However, once it became known that Karen was an easy target, the persecution returned. Karen spent most of her time in various classrooms and avoided the general school population as much as possible. She managed to endure

Grade 9. She did not look forward to high school and Grade 10. Her thoughts, the summer before moving to high school, were filled with fear, she shared:

> Between Grade 9 and 10, I was worried about new teachers, new school, new kids. I was really scared. When I started to think about high school, I started to shake. I was scared about being teased, scared about math, science, scared about not being able to understand the teacher. I created things in my head about what it was going to be like. It was horrible. (Personal communication, February, 2002)

Karen's first day at high school was short. Her dad took her to school and walked her to her locker. She stayed by her locker, even after the bell went. She was afraid to move. As students went to their classes, the hallways cleared and Karen took off, catching a bus and staying on it until it was on its third cycle round its route. At that point, she decided to get off and go home. Mom decided to meet with Karen's teachers. She also met with Karen's TA and set up a schedule whereby Karen could walk to classes with either mom or her TA. This worked well and familiarized Karen with her surroundings.

In science class, we handled things differently. Karen liked to stay in the classroom over the lunch period. She often asked about my family, our pets, weekends, and our backgrounds. As I shared stories with her, she became less and less reluctant to share her life experiences with me. She excelled in language arts and enjoyed drama immensely. She became very interested in my family's hobbies. One day she asked how we trained and entered competitions (trials) with our dogs. I told her stories of our dogs, their training, and how we competed. The next day I asked Karen how she felt going from class to class. I asked her to pretend it was drama class and she was directing me and I was the person going from class to class. She looked fearful initially but she shared:

> Well, depending on which class you are in. You look at the clock and you know it's nearly time and you think "Can I leave yet? Can I leave yet? Can I leave yet?" But when you are in English, the class sits around in a circle and you can't tune the people out when you need to so you have to look at the door, you don't know why the door, you like the door, you just look at the door. Then you hear the bell and you try and get out without having to bump into people but it's difficult, you think "don't bump me, don't bump me, don't ." You go to your locker. You change your books. You head towards science. Always, outside the computer room, people are laughing and making a noise, too much noise, too much activity. They only leave a narrow passage to let you through. Two boys are pretending to fight. You beg, don't bump me, don't bump me. You have to get to science before the bell goes. Lots of kids are coming towards you. You can't cross their path. Which door, which door? The bell's gone. You are at the door. You smile. Relief. (Personal communication, March, 2002)

I listened to the story. I could feel my body tense as I heard her tell the story. I couldn't imagine what it was like for Karen as she experienced what she described. She said it was the noise and the activity all happening at the same time that caused her to be anxious. I asked her to plan how she could avoid the activity and noise. She suggested leaving class

5 minutes early or 5 minutes late when the hallways were not as crowded. Her strategy worked; she avoided the crowds and the crushes in the hallways. Karen was the one who understood her situation better than anyone else. She developed a simple plan to overcome a difficulty. As she continued in high school, she began to develop other strategies that helped her to cope with life in high school. Sometimes she asked for help in formulating strategies; other times she would simply ask if she could try something. Sometimes the strategies worked and sometimes they needed modification or reformulation. Her involvement produced results both in terms of outcomes that worked and a willingness to deal with challenges.

Leah helped me to understand some of my puzzle and showed me that students benefited from involvement in their own learning. Karen emphasized how important involvement was and how successful a teacher and student could be as a result of student involvement. While helping me to understand some of the puzzle, Karen and Leah also caused me to wonder and add to the puzzle. Theirs was involvement on a very limited scale, and it was based on one-on-one lunch time tutorials. How would the involvement work on a larger scale, a whole class for instance? Karen and Leah had a strong desire to be involved in their own learning. How would different learning orientations and different motivations affect the desire for involvement? For instance, Fahim and I worked collaboratively on strategies to improve his school and university grades. But, as I found out later, Rahim seemed to prefer to practice avoidance rather than involvement. How could I promote an orientation that matched Fahim's and dissuade students from adopting an orientation that matched Rahim's?

Aysha's Story

Aysha's story begins in Grade 10. Aysha, her mom and I were careful in choosing her high school. It had a good blend of programs, athletic and academic. Her Grade 10 year was uneventful. Grade 11 and 12 went by with only minor troubles. She didn't need to put too much effort into school in order to be successful but, at university, her struggles began. After her first year, she decided to drop out. The work was too much for her. This was a shock. I expected Aysha to find university challenging but not impossible. I thought her greatest challenge would be attitude and work ethic rather than an inability to deal with the material. As a result, I focused on those aspects, assuming that the reason Aysha was not performing was her work ethic and her attitude.

She did not or could not offer any other explanation. She could not explain how different the learning was or what was happening in her learning process. She seemed to be perplexed when I asked questions about how she was learning or not learning. Aysha turned away from the idea of further education and refused to even discuss going back to university. She decided to take a year off. One year later, she tried a different post-secondary institution, with the same result. She dropped out after a year. The following September, she tried again, same result.

I was annoyed at her attitude and frustrated with everything that was happening. She was a capable high school student, achieving a fairly high standard without having to overextend herself. Now, she was foregoing a promising future. Next she tried the University of Calgary (U of C). Aysha started the familiar pattern of finding her course work difficult and not keeping up with the material. Was the next step dropping out? No, something different happened. The U of C's Flying Start Program was designed to help students make the transition from high school to university; it also catered to and advocated for students with learning disabilities. She decided to talk to the Flying Start people. That evening she called me from her residence in Calgary. "Dad, do you think I have a learning disability? The people at Flying Start said I may have and I have to go see them some more" (Personal communication, November, 2004). The simple question brought forth many emotions and thoughts and realizations. First of all, a light was switched on. It was a dim light which became gradually brighter as I thought back to the few times Aysha had difficulty at school. It was when she began a new subject or a new course or a new unit. It was typically when she had to report on something new she had experienced. She knew all the material but there appeared to be some barrier, some difficulty in reprocessing and reporting.

I thought of my coursework at university and my school experiences of students with learning disabilities. Many had experienced difficulties during school transitions, with novel situations, while processing information and thoughts, and when trying to explain difficulties. I thought of the suggestions of lack of effort and the accusations of poor attitude that teachers and even parents had made. I had advocated for my students and tried to talk to parents and colleagues to explain that their children and students were equally as capable as other children and students but that some unseen challenge prevented them from excelling as their classmates did. I believed (and still do) that we needed to find different ways of teaching and knowing in order to remove or overcome the obstacles.

I finally replied to Aysha that if the people with Flying Start had made the suggestion, it was possible that she had some kind of learning disability. After almost 2 hours of telephone conversation, we developed a plan of action. Really, it was an action plan for our family because we were all a part of it. Before she said "Bye and love you," she mentioned that we both should have caught it. "But when it's right there in front of your nose, it is very difficult," she added (Personal communication, November, 2004).

Aysha added another dimension to my research puzzle. We clearly missed some indicators of her difficulty while she was at high school. Or did we? Did she find high school so easy that the difficulties were not apparent until university? During university, was Aysha really aware of what was happening? After all, she had never been encouraged to think about the learning process. She indicated that there was communication and connection with her high school teachers and her university instructors, but she was silenced when it came to explaining her difficulties. She had not been given the words or shown the pathways by which she could explore her learning processes.

When I looked back at this episode it made me think of the *Silencing* that Michelle Fine (1987) wrote of. When our children don't succeed in our education system, we don't usually ask questions of the education system; we tend to point fingers at the student or, occasionally, the teacher. We don't usually spend much time finding out why. There is all-round acceptance. Conversations "are forestalled by student compliance" (Fine, 1987, p. 167). They are also forestalled by parent and teacher compliance and "dropping out is viewed by educators, policy makers, teachers and often students as an individual act, an expression of incompetence or self-sabotage" (p. 171). Michelle Fine's message and Aysha's difficulties prompted me to wonder about our students' learning and their awareness of their learning processes: Even if conversations are not "forestalled by student compliance," if we encourage our students to speak, would they have the words to tell what they experience or would they even know what they experience, when they don't succeed? What do we need to do as teachers in order to be able to have those conversations with our students?

Aysha found a group of people to help her break her silence. The Flying Start people helped her to understand her ways of knowing, enabled her to have conversations about her learning, and, in doing so they gave her the hope that none of her other programs had—the hope that she could succeed. Prior to her involvement with the Flying Start Program, Aysha had, in her own words, failed.

Puzzling

My puzzling began in the midst of satisfaction, satisfaction that accompanied a former student's return to my classroom with stories of achievement at university. I felt there was something missing from my personal practical knowledge, something I was not doing in the classroom, something to do with students' learning. It also concerned how well I prepared students to tackle obstacles and occasional failures and how they approached learning opportunities. Jasbir added to the puzzle. Why was his high school success not sustainable at university? Walid's and Ali's successful experiences continued as they transferred from high school to university and they suggested it was a collaborative success. I sensed that working collaboratively was a way of responding to the puzzle. Fahim's success and Rahim's relative failure added to my wonders. It was clear that they approached learning differently. What were their different strategies telling me about their successes and failures? Did the strategies stem from a particular orientation towards learning? If it was their orientation to learning, who or what lead them to it?

Karen and Leah helped me to think through some of the puzzle and, at the same time, added to it. They showed me how important student involvement was and how success would flow as a result of student involvement. They added to the puzzle because their involvement was limited in scale, based on one-on-one tutorials and self-motivated involvement. How would a whole class become involved? How would different learning orientations and different motivations affect the desire for involvement? My goals seemed to be to promote an orientation that matched Fahim's and to dissuade students from adopting an orientation that matched Rahim's.

CHAPTER 2. UNDERSTANDING CURRICULUM

A Journey to …

To this day, my students and my children have remained generous with their puzzles and their ability to make me wonder. My journey to understanding some of the puzzles had many twists and turns. The first leg of the journey was central to my understanding of some of those puzzles. It involved gaining an appreciation of what curriculum really meant. Before embarking on this journey my notion of curriculum was limited to the documentation published by our provincial government that indicated what teachers should teach and what student outcomes should be. As my journey progressed, I found curriculum to be much more.

Curriculum…

The guide I used on my journey was *Teachers as Curriculum Planners: Narratives of Experience* (Connelly & Clandinin, 1988) and, throughout this chapter, I refer to this work as my guide. I was guided to an understanding of curriculum, a deep enough understanding to be able to answer the 2 questions:

(1) What is curriculum?

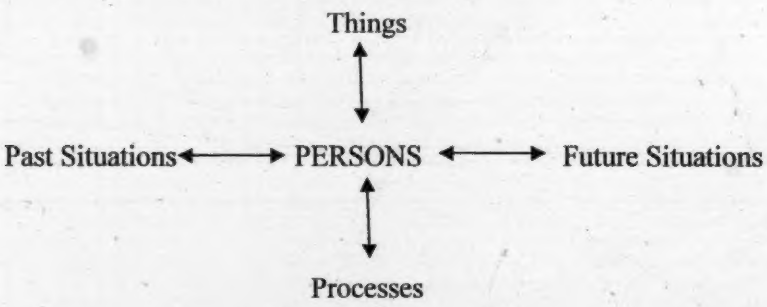
(2) How do I do it?

Very early in my journey, my guide advanced a notion of curriculum that was completely unfamiliar:

> All teaching and learning questions – all curriculum matters – [are] looked at from the point of view of the involved persons … curriculum development and

> curriculum planning are fundamentally questions of teacher thinking and teacher doing … it is a teacher's personal knowledge that determines all matters of significance relative to the planned conduct of classrooms. (p. 4)

My guide offered a simple answer to the first question (What is curriculum?). "Curriculum is something experienced in situations" (Connelly & Clandinin, 1988, p. 6). The simplicity of the answer lasted for barely the turn of a wheel as my guide followed with an indication of the complexity of the notion of curriculum:



The above model depicts my understanding of the notion of curriculum suggested by Connelly and Clandinin (1988). Using the curriculum model, I understood that *persons* were primarily students and teachers involved in the *processes* of teaching and learning. I understood that *things* were text books and other resources that students and teachers use when engaged in teaching and learning. "When we say the word 'curriculum,' then, we need to have a picture in mind in which all of these parts are in interaction" (p. 7). And the picture I conjured up showed a dynamic rather than static interaction among persons, things, and processes.

Another important element that my guide added was history. The relationship between teachers and students was partially formed in the past, and that history is reflected in present interactions in the classroom as teachers and students engage in "continually remaking that history" (Connelly & Clandinin, 1988, p. 8). Similarly, teachers and students have a future which is affected by historical and present events, just as historical and present events are affected by how we view our futures.

I initially thought of persons solely as individuals in a dynamic interaction with things, processes in time: past, present and future. However, another guide, *Narrative Inquiry: Experience and Story in Qualitative Research* (Clandinin & Connelly, 2000), from another leg of my journey made me think otherwise. I came to think of the central portion of the model as describing interactions among and between individuals and groups and their interactions with all other elements of the model. My evolving understanding suggested that curriculum is a dynamic entity that involves interactions flowing among and between individuals and groups. Each interaction and interchange, verbal and non-verbal, influences the flow and is influenced by the flow and by the interactions among things, persons and processes. Curriculum's strong temporal component added to the complexity. Histories are influenced and re-influenced by storying and re-storying. Histories and presents take the journey to tomorrow and influence future events. Last day, last week, last month and last semester when I spoke about curriculum, a major focus was the future or, at least, preparation for the future. Thus, the future influences what we do today and influenced what we did in the past.

Personal Practical Knowledge...

Persons and, hence, the personal are key components of my understanding of curriculum. On the next part of the journey my guide led me to the notion of personal practical knowledge, the channel through which the questions, What is curriculum? and How do I do it? are brought together within the person. What constitutes personal practical knowledge? My guide suggested that personal practical knowledge resides in a person's history, in a person's stories that make up a history, in a person's present mind and body, and in a person's future plans and actions and it may be observed as we watch a set of minds and bodies at work in a classroom. I was informed that personal practical knowledge is a way of "reconstructing the past and the intentions for the future" (Connelly & Clandinin, 1988, p. 25) to deal with the demands of a present situation. Further, the demands of a present situation draw out particular aspects of a person's history, some specific stories or parts of stories. The aspects which are drawn out may be intended and promoted by an individual or group and some may be unintentional. Far from having simple objectivity; they carry emotional, moral and aesthetic content. It may be said that we deal with situations, including curriculum situations by drawing, affectively and objectively, from personal practical knowledge that may be found in our stories from the varied and different parts of our lives.

Narrative...

My guide offered the notion of "narrative" that permits us to bring together the varied and different parts of our lives into a whole:

> A narrative is a kind of life story, larger and more sweeping than the short stories that compose it. Narrative is the study of how humans make meaning of experience by endlessly telling and retelling stories about themselves that both

> refigure the past and create purpose for the future. To study narrative in trying to understand the personal, one needs to ask questions about not only the past, or the present or the future, but about all three. For any one teacher, therefore, clues to the personal are obtained from one's history, from how one thinks and feels and from how one acts. (Connelly & Clandinin, 1988, pp. 24-25)

My guide proposed interwoven and dynamic connections between the idea of narrative as a story of life and the notion of curriculum as experienced in past, present and future situations. Many of our experiences occur within a school context and many more outside. In understanding ourselves and our students in a school setting, we need an understanding of people from the narrative as a story of life perspective, of which school is only a part: "Life's narratives are the context for making meaning of school situations. It is no more possible to understand a child as only a student than it is to understand each of us as only a teacher" (Connelly & Clandinin, 1988, p. 27). Taking this one step further, my guide suggested that if each of us understands our own narrative, and, therefore, our own curriculum, we will better understand the curriculum of our students and, by connecting with our students, they will gain a better understanding of our curriculum and where we need to journey together.

Safe Places…

My guide led me to the belief that personal practical knowledge is the lifeblood of the curriculum, enlivening, providing nutrients, and allowing the curriculum to grow and be energized. My guide indicated that personal practical knowledge resides within all of us, in our history, in our stories, in our present mind and body, and in future plans and actions, whether we are teachers, students, parents, or any of the many other stakeholders within our educational systems. My students' and my own achievements would be severely limited if I decided to leave out something as important as one of the four units in a diploma course. Similarly, I believe our achievements would be limited by not attending to students' and teachers' personal practical knowledge. It follows, then that when I attend to students' and teachers' personal practical knowledge, my students and I achieve at a higher level.

In looking back on my teaching experiences, some of which I described in the last chapter, I realize that attending to students' and teachers' personal practical knowledge would have helped me to understand more of students' puzzles. To have known more of each others' ways of knowing, history, feelings, and aims in the past, present, and future would have been beneficial to me and to students. Unfortunately, personal practical knowledge was not one of our primary concerns, and there is often a reluctance to share personal practical knowledge. I initially experienced difficulty in sharing aspects of my personal practical knowledge with my students. Consequently, I can understand students' difficulties when sharing with teachers and classmates. And I now see the essence of creating safe places in classrooms where students and teachers can share and become aware of each others' personal practical knowledge.

The following story helped me to a deeper understanding of how students experience certain situations. The story also pushed me to realize the degree to which my students appreciate the safe places we must create for them. Taken from *Teachers' Professional Knowledge Landscapes* (Clandinin & Connelly, 1996), the story relates how an elementary school teacher, Karen, created safe places in her classroom so that her students could share and teach and learn.

> During support circle this afternoon, Jessica shared her story of how she sleeps with a teddy bear. Before Jessica shared her story, however, we talked about how she wanted to share but was afraid to. Together, as a group, we spent time talking about how we wanted the support circle to feel safe and supportive and how we did not want anyone to feel uncomfortable sharing their stories. The room was completely still for many minutes after Jessica shared her story. It was wonderful how a number of the other children responded to her story and supported her by telling her how she should not feel afraid about telling them that she sleeps with a teddy bear. (p. 149)

Karen's support circle evolved into small groups in which each child was given "more personal space ... to give voice to his or her own stories" (Clandinin & Connelly, 1996, p.149). As an example, Karen tells of the day when she read to her children from *All the Secrets of the World* (Yolen, 1991). The story is about being too young to understand. Karen shared how she thought that no matter how old we are, we are still too young to understand some things "cause there's things that even now, I don't understand" (Clandinin & Connelly, 1996, p. 149). She encouraged her children to think of some of those things that they didn't understand. "Anna talked about her parent's divorce ... Natalie talked about her uncle's suicide. We got into those incredibly deep, sacred stories … and almost all the kids talked about something that was really close to their heart" (p.

149). When Karen and the children returned to their larger support circle, she found them "quite willing" (p. 149) to share. The safety of the smaller support circle seemed to provide security for sharing in the larger support circle.

> As Karen and the children came together in a community of co-learners, they lived in safe relationships in which each unique, knowing voice was encouraged, listened to and thoughtfully responded to. It has been in this landscape that each has experienced awakenings and transformations in the lived stories. What is important about this community however, is coming to understand how, at the heart of its foundation, lie two very distinct educative qualities—the celebration of different voices and the learning that occurs when these voices are shared. (Clandinin & Connelly, 1996, p. 150)

Changing Places...

Karen's story was set in an elementary school. Things are different in a high school. Things are also the same in a high school. In my present-day classroom, very rarely do we talk about sleeping with a teddy bear, but we often talk about our stories, about understanding things. I try to bring my students together as a community of learners and offer opportunities to teach and to learn from classmates. In order to create a community of learners, I must first of all create safe places and safe relationships for my students. I prefer not to respond to their offerings with the abruptness of a mark, at least not without the buffer of an explanation or the encouragement of a safety net of a second or third chance. I listen to and aim to respond thoughtfully to my students as they give voice to their personal practical knowledge. I accompany them on their voyages of discovery, trying to figure out where they are and where they want to go and how I can help them to get there. My classroom has undergone a transformation since the days of Jasbir, Walid, Ali, Rahim, Fahim, Leah, and Karen several years ago. Classrooms should undergo transformations over periods of time. What caused the transformation? Some of the answer is in the last sentence of the story "the celebration of different voices and the learning that occurs when these voices are shared" (Clandinin & Connelly, 1996, p. 150). Another part of the answer is attending to the curriculum that students and teachers build together through personal practical knowledge and much is in the story of Galupiluk (Sewall, 1996).

Galupiluk, A Sea Monster

Blessed Be the Spirit That Carries Us from Day to Day (Sewall, 1996) is the story of Galupiluk, a sea monster who lives among the ice floes, away from the safety of the shoreline. When disobedient (or adventurous or creative or unknowing) children wander away from the safety they know and out on to the ice floes, Galupiluk tries to catch them, trapping them in the hood of his parka.

I already told some of Jasbir's story. He wandered away from the safety of his shoreline, his home and his high school. After meeting the threat of Galupiluk in the form of potential expulsion from university, he returned to the safety of his school and my classroom. He sought help (with his university work) as he went back out on to the ice floes – I wandered out on to the ice floes with him – I helped him with his assignments. Did I wander or did I blunder? Did my weight and my rushing around on the ice floe help or did it create even greater disequilibrium? At best, I created a temporary calm, some temporary protection and perhaps some guidance. Jasbir endured his capture by Galupiluk and may have made good his escape; only time will tell.

That is our reaction when our children, our students wander away from the safety of the shore. We rush out on to the ice. We try to lead them back to safety. At the very least, we shout words of encouragement and advice from the safety of the shore. We believe we have earned our place on shore. We have negotiated the shifting ice floes and escaped from Galupiluk. But what of our students? Will they get by as a result of our words of encouragement? Will our advice lend them an agility that will enable them to outskip Galupiluk as they dance from ice floe to ice floe? Is the task to rescue or to show how to evade the clutches of Galupiluk? I also remember Walid, Ali, Fahim and Rahim. I didn't wander out on to their ice floes, didn't try to hold their hands and guide them to safety. I simply called out advice and encouragement, somehow knowing that they would learn to negotiate the ice floes and, except for a few close calls, escape the clutches of Galupiluk.

What did I learn about Leah, Karen, Sarah and Aysha? Their ice floes were different, maybe more slippery, maybe smaller, perhaps more apt to tip. And what of their Galupiluk? Was he quicker, more nimble, more likely to catch them? It seems so. But, despite the different ice floes and the swifter Galupiluk, our aim must be to teach all our children how to negotiate the ice floes as they leave the safety of their shorelines, and to teach them how to evade capture by Galupiluk.

Stories and Connections

Ian Sewall (1996) suggested that the answers may lie in stories. Remembering that our stories, our histories are interwoven with our curriculum and our personal practical knowledge, how do we pull the answers from our stories? Certainly I have tried and, with many of my students, I have succeeded in communicating, making a connection and providing some answers. I had the privilege of being Jasbir's mentor, confidante and counselor. He used our personal practical knowledge as he tried to dodge Galupiluk. His experiences added to our knowledge. Similarly Walid, Ali, Fahim and Rahim returned to school during university and college vacations, showing a willingness to continue friendships and mentorships. Who was the mentor and who was being mentored as I continued my journey of learning as a teacher and they continued their journeys of learning as students? They wanted to share their stories, their personal practical knowledge and, in doing so, contributed to my personal practical knowledge.

I recall two or three teachers forming a really strong bond with my own child, Sarah. They showed a willingness to share stories and share worlds and, in so doing, provided some answers. As with Leah and Karen, I believe Sarah taught her teachers much more than they taught her. Leah was one of my many teachers. She taught me as much, if not more, than any other. I became a part of her story and almost became a part of her success. Together we found many answers. Karen shared her stories and successes with me. All I had to do was to show interest and offer Karen the opportunity to allow me to journey to her world.

Although the connections I made with students were intended, I would not regard the learning that I engaged in as intended learning. Connections were made because we clicked; it was a result of the privileges afforded by students, within a social landscape that I shared with them. I did see the benefits in their school work, in their personal practical knowledge, in my personal practical knowledge and in my practice. I felt the benefits were a kind of by-product, belonging to our academic landscape but not resulting from any specific focus.

As I think about my students, I think about the connections. Each connection allowed me to gain insight into their individual learning, and it helped me discover ways to guide them towards success. The connection with other students was, perhaps, not as strong, I knew I had to strengthen it and share and build on our personal practical knowledge.

There seemed to be too much of, Where are my students in their journeys? and not enough of, Where are my students going, and How are they going to get there? We did spend time talking about how we learn individually and how our learning must evolve as we progress and mature. I did involve my students but was it enough?

In other words, in the interweaving of curriculum and personal practical knowledge, I was attending to some of the past: the part that tells me how much my students have learned. I was attending to some of the present: the part that tells me how much my students are learning and where they are situated in the learning process. I was attending to some of the future: the part which gives teacher and student the confidence to continue learning similar material in a similar manner. What of the missing parts of past, present and future?

I needed to fully attend to the "how" of my students' learning and to their present and future involvement in their learning process. The notion of curriculum as what happens in the classroom and the interrelationships of student learning, personal practical knowledge (not forgetting its affective nature), and the idea of narrative as a story of life suggests "that we need to broaden our idea of education beyond that of schooling" (Connelly & Clandinin, 1988, p.27). The interrelationships suggested that, in order to attend to the "how" of students' learning, I needed to attend to their personal practical knowledge and its affective nature; I needed to attend to the lives of students and their narratives as stories of their lives; and I needed to lead students to an understanding of the "how" of learning by involving them in their learning. Not only would they learn to evade Galupiluk but they also would develop their own strategies to continue to outmaneuver the sea monster. I believe the foundations for involving students in the learning process were there, some of the puzzles were becoming clearer, and my wondering was becoming more focused.

Puzzling

A deeper understanding of curriculum led me to a deeper understanding of the puzzle. I realized that attending to students' and teachers' personal practical knowledge would have helped me to understand more of the puzzle. It seemed obvious to say, "To have known more of each others' ways of knowing, history, feelings, aims—past, present and future—would have been beneficial to me and to students" but, occasionally, the obvious is missed. In order to attend to personal practical knowledge, I needed to overcome students' reluctance to share personal practical knowledge. How? With some students I formed a connection, we clicked. With others, the connection needed to be strengthened. Strong connections could lead to student involvement. Where did safe places and safe relationships fit in? Did I need safe places and safe relationships before students became involved? Did students need some degree of involvement before they could be shown that safe places and safe relationships existed? The answer seemed to be "It depends." It depended upon a student's personal practical knowledge, prior relationships with school, teachers and learning, and present orientation to learning and future goals. What next? My research puzzle became one of thinking more deeply about student involvement in learning. The foundations for student involvement were there. The question became, "How do I build on that foundation?"

CHAPTER 3. ASSESSMENT FOR LEARNING

Questions and Puzzles

How did I build on that foundation? The story began three years ago as I transferred schools. It is the story of how Assessment for Learning came to my classroom.

What is Assessment for Learning? Here is the book version:

> Assessment for Learning is any assessment for which the first priority in its design and practice is to serve the purpose of promoting students' learning. An assessment activity can help learning if it provides information that teachers and their students can use as feedback in assessing themselves and one another in modifying the teaching and learning activities in which they are engaged. (Black, Harrison, Lee, Marshall, & William, 2004, p. 10)

My short version is: Assessment for Learning is assessment of curriculum. My notion of curriculum is what happens in the classroom. I think of assessment in a similar way to Black et al. (2004) as serving the purpose of promoting students' learning. Combining these notions, I believe Assessment for Learning is collaboratively assessing what goes on in the classroom, providing feedback to students and teachers, and then using the feedback to inform future happenings in the classroom and to inform teaching and learning outside of the classroom. Also, I believe Assessment for Learning has obvious and close associations with personal practical knowledge:

> When we ask "what is personal practical knowledge?" For any one person, the answer is that it is a particular way of reconstructing the past and the intentions of the future to deal with the exigencies of a present situation. (Connelly & Clandinin, 1988, p. 25)

By including personal practical knowledge, I am reminded that the knowledge I share and build with students is not merely an objective knowledge:

> Personal practical knowledge is an affective knowledge. All of our experiences take place with our total being. It is virtually impossible to imagine having an experience that does not carry with it emotional, moral and aesthetic content. Experiences are felt. Experiences are valued. And experiences are appreciated. And so, when we say that we know something that is located in the past, present, and future, we are also saying something that is laden with the human qualities of emotionality, value and aesthetics. (Connelly & Clandinin, 1988, p. 27)

The long version of What is Assessment for Learning? and Where did it come from? were the initial questions that drove my research work. Because of the close associations between curriculum, as understood from *Teachers as Curriculum Planners: Narratives of Experience* (Connelly & Clandinin, 1988) and Assessment for Learning, my questions followed the pattern established in that book. Thus, the next question driving my research was: How do I do Assessment for Learning? As I read and re-read *Teachers as Curriculum Planners: Narratives of Experience*, I was given the tools to begin to help me understand the meaning of curriculum. In a similar manner, my desire was to bring out meaning with my final question: What does Assessment for Learning mean in the context of the classroom? I attempted to answer the questions through the telling and re-telling of stories from the perspective of the classroom teacher. Mary Catherine Bateson (1989) provided me with the answer to "why stories?" The telling and re-telling of stories is "fundamental to the human search for meaning" (Bateson, 1989, p. 34).

Embedded within each of those questions and accompanying the arrival of Assessment for Learning in my classroom and my colleagues' classrooms were many more questions to which I attended. As I began to use Assessment for Learning, I adopted a "for learning" perspective and my practice began to change. I observed my colleagues as they began to use Assessment for Learning in their classrooms. They adopted a "for learning" perspective and their practices began to change. How did practices change? Did Assessment for Learning simply provide a different language, an expanded vocabulary, by which teachers could describe their teaching in different ways? Were practices transformed? Where practices were transformed, did changes occur incrementally over a fairly long period or did they occur overnight? Did Assessment for Learning provide a different vantage point from which to view teaching? Did it provide a clearer focus? Was it an affirmation of practice, a shifting of practice or a combination of the two? If the introduction of Assessment for Learning was accompanied by a shift in practice, what were the effects on the curriculum-making that occurred in the classroom?

I soon found that Assessment for Learning is about collaborative curriculum-making that occurs in the midst of students' and teacher's personal practical knowledge;

it is about honouring students' knowledge, honouring teachers' knowledge, and honouring the knowledge composed collaboratively. It is about positioning students quite differently in relation to the teacher and in relation to the negotiated curriculum. Was there a change in the ongoing curriculum-making? Was there a change in negotiation of the ongoing curriculum-making? And, as a result of the negotiation, was there a change in participants or their roles and were their roles clarified or muddied?

These were the wonders and questions I wished to explore both in my own stories and the stories of other teachers. Although I have used the past tense to introduce my wonders, they are still occurring and will continue to occur, along with many other wonders. As I continue to address these puzzles and attend to these wonders, I am expecting my students and my practice to continue to be generous with their gifts of wonders and puzzles.

Significance of the Work

Assessment for Learning is a practical application of self-theories or motivational theories described by Dweck (2000). Understanding the connections between self-theories and motivational theories and Assessment for Learning and the evolution of Assessment for Learning from self-theories and motivational theories was essential as I put Assessment for Learning into practice. The significance of this work is three-fold.

First, as I return to the foundations of Assessment for Learning and describe its evolution and how I made the connections, I hope that the telling will serve teacher practitioners as the understanding served me.

Second, the key to making Assessment for Learning work is including students in their own learning and in making decisions about their own learning. This usually involves a giant leap of faith by the teachers who are trying to implement Assessment for Learning and by students who, at the end of the day, had to be willing participants in order for Assessment for Learning to be successful. Students' responses depend upon how we, as teachers, foster their confidence and willingness to participate by engaging their personal practical knowledge, listening to their stories, and becoming a part of their narratives. I hope that the descriptions of our leaps of faith will give others the courage that I occasionally lacked when I began the implementation of Assessment for Learning.

Third, I regard Assessment for Learning as a work-in-progress. I continue to refine my practice by telling and re-telling, by listening, and by engaging students and colleagues. One item that would have been of great benefit when I began was a guide. Not a guide that I would blindly follow and, at the end of the road, expect to arrive at Assessment for Learning. My guide would have provided details of a previous journey. I would have followed some parts of the journey exactly, others I would have modified, yet others I may have ignored and followed my own route. As a new journey begins, it often helps to have guidance from someone who has traveled before. I trust that the description of this journey will be a guide to those who have not yet begun, are just beginning or are already on the journey, and that, in turn, they will guide me as I begin the next stage of my journey.

Returning to the story of Galupiluk, I believe this Assessment for Learning story will show that, as a community of learners, we can negotiate the ice floes and escape Galupiluk's clutches. I believe we have become sure-footed in leaping from ice floe to ice floe and returning to shore when we so desire. And, because this is an ongoing story, we will continue to venture out on to the ice floes and evade Galupiluk. By relating these experiences I hope this work will help and guide others to be more nimble as they and their students evade Galupiluk.

The Beginning

Assessment for Learning is not just focused on student work. I came to think of it as being focused on what happens in the classroom: on students' teaching and learning and on teachers' teaching and learning. When I use a similar definition of curriculum to that defined in *Teachers as Curriculum Planners: Narratives of Experience* (Connelly & Clandinin, 1988)—what happens in the classroom—then Assessment for Learning is intricately interwoven with curriculum. And, as with curriculum, it is "looked at from the point of view of the involved persons" (p. 4) and the personal practical knowledge of those involved persons.

The school district's assessment initiative, *Using Assessment to Drive Our Teaching* began over three years ago. When I first heard the phrase "using assessment to drive our teaching," it sounded terrible. I had a vision of a teacher with a big stick standing over a student, encouraging the student to do the test. The teacher then marked the test. The student received a grade and an appropriate level of encouragement to do better next time. The vision gradually changed to a picture of my school and, particularly, my classroom where teacher and students were collaboratively engaged in using assessment to inform and improve teaching and learning. I must point out that we used, and continue to use, a balance of Assessment for Learning and Assessment of Learning.

Even after the introduction of Assessment for Learning, Assessment of Learning was never disregarded. Its importance remained. We needed the snapshot to tell us where our students were in their learning. However, we did begin to use our Assessments of Learning in a more formative way, not only using them "of learning" but also "for learning."

Although it all began a year earlier, the highlight of our district's PD sessions around Assessment for Learning was a day long presentation by Ruth Sutton.

Edmonton Teacher's Conference with Ruth Sutton

We all filed into a large room. Round tables were set up, about 50 of them in total. Each table could accommodate ten people. At the front of the room was a small stage, at the centre of which was a large screen. Projected on to the screen in large blue letters were the words:

Assessment FOR Learning
Ten Steps to Heaven
Edmonton Teachers' Conference
With Ruth Sutton

The presentation was the first exposure to Assessment for Learning for most teachers in our school district. The attendees were members of each school's Instructional Leadership Team (ILT). The make-up of the ILT was school-dependent. At some schools the ILT was the faculty council (department heads, assistant principals, and principal); at others, it was a selected group of teachers; while, at others, staff members took turns in representing their school. ILTs met regularly and discussed how district initiatives were to be addressed. Every month, ILTs from several schools were brought together. Sometimes there were guest speakers and facilitators. Other times, the ILTs simply sat, talked and shared what they were doing in their classrooms. The ILT gatherings provided opportunities to expand networks, discover how other schools were progressing and plan visits to other schools. The collaboration did not stop at the end of the gatherings, it continued (and still continues) before school, during prep periods, at lunch times, after school, and at other spare moments.

Added benefits from the ILT gatherings were opportunities to collaborate with junior high and elementary teachers. Typically, we tended to stick to our own groupings: senior high, junior high, and elementary. However, on these occasions, we were given opportunities and strong encouragement to mix. Although the purpose of my work is not to report the benefits of collaboration with junior high and elementary teachers, that there were significant, immediate, and wide-ranging benefits is worth mentioning.

Sutton introduced herself as an educator with 10 years of classroom and administration experience followed by 20 years of experience as a consultant to Local Education Authorities in the United Kingdom and school districts in North America. She mentioned particularly her work in inner-city and suburban schools in Manchester and inner-city schools in Winnipeg. The inner-city schools in Manchester were in some of the most deprived areas in the UK, and the city's suburban schools were in some of the most affluent areas. She stressed that Assessment for Learning, appropriately matched to each situation, provided benefits for a wide range of students at a variety of schools.

As I listened to her opening comments, I recalled other PD initiatives and opportunities afforded to our district's teachers. There had already been a shift in our district's mostly traditional, hierarchical and centralized approach to PD to a more collaborative, constructivist and decentralized approach (Lambert, 1998). Richard DuFour and Robert Eaker (1998), two of our district's mentors, captured the voices of many of our teachers:

> The terms "staff development," "inservice," and "professional development" are likely to engender negative reaction in veteran educators. For many teachers, these terms are synonymous with occasional day-long workshops where they sit passively while an alleged expert "exposes" them to new ideas or practices. The program is then assessed on the basis of the "happiness quotient"—the level of teacher satisfaction with the presentation—rather than on its impact on teaching and learning. (p. 255)

I also recalled an extract from a report by the National Commission on Teaching (1996) being posted in our staff room, by our principal:

> There is a mismatch between the kind of teaching and learning teachers are now expected to pursue with their students and the teaching they experience in their own education. Teachers are urged to engage their students in actively building their understanding of new ideas; to provide opportunities for practice and feedback as well as for inquiry, problem solving, collaboration, and critical reflection; to connect knowledge to students' development stages and personal experiences; and to carefully assess student learning over time. These desirable

> characteristics of teaching are usually absent in the learning afforded to teachers. There are few parallels between how teachers are expected to teach and how they are encouraged to learn. (p. 84)

As our teachers' voices were heard and as the mismatch was acknowledged, our PD opportunities were expanded, the intent being to provide ongoing coaching and opportunities to collaborate and reflect. Often, our goals were achieved. However, occasionally, we would slip back into the traditional, hierarchical, and centralized approach. I asked myself if this conference with Ruth Sutton would be a day long exposure to an expert's new ideas and practices. At the end of the day would my happiness come into question? Would the encouragements to learn match the expectations of my teaching?

Sutton opened with the day's agenda:

> Session 1: What's the bottom line, why should we do this stuff, and what's in it for teachers as well as students?
>
> Session 2: What are the practical implications of making the link between assessment, learning and improved student outcomes? What can we learn from each other, and what questions do we have?
>
> Session 3: Are there some satisfactory answers to our questions? What do we want/need to do next in our schools? What's the first step?

An impressive opening. I remember thinking, "What's in it for me and my students?" I answered my own question: "Practical. Collaborative." How do we start?

Ruth Sutton began by outlining two approaches to assessment: Assessment of Learning and Assessment for Learning and provided a simple summary of the differences between the two.

Assessment of Learning	**Assessment for Learning**
Checks learning to date	Suggests next learning
Audience beyond the classroom	Audience is teachers and learners
Periodic	Continual – conversation and marking
Uses numbers, scores and grades	Specific feedback using words
Criterion/standards referenced	Self-referenced
No need to involve the learner	Must involve the learner

Sutton continued by guiding her audience through the research studies which served as a background to her work, the major works being those of Dweck (2000), Black and William (1998) and the Assessment Reform Group (2002a) (I will return to these studies and others later in this work). The research studies pointed to a connection between student achievement and the more formative ways of assessing progress. Ruth Sutton pointed out that the key difference between formative assessment and Assessment for Learning is student involvement. Assessment for Learning stressed student involvement in the assessment process with the ultimate goals being student self-assessment and an understanding of how to improve performance.

Sutton gave an overview of the work she was involved with in Winnipeg, outlined some specific strategies that teachers had used in their classrooms and spoke of the successes of students, teachers and schools. She emphasized the need for frequent collaboration among teachers embarking on this particular voyage of discovery. She suggested that many teachers would have positive experiences as they implemented Assessment for Learning. She also suggested that there would be many less than positive experiences. She emphasized the need for school and district administrations to be aware of the need for teachers to collaborate, share, reflect, resolve, and support one another in order to help students to succeed through Assessment for Learning. Why is the extensive support necessary?

Sutton suggested that time and again researchers report that teachers understand the ideas of Assessment for Learning but find it very difficult to put into practice. One of the barriers to change was found to be the power of habit and how teachers deal with classroom change. "Changing habits takes practice, practice, practice" (Sutton, 2005). In those periods of changing habits and "practice, practice, practice" Sutton found that teachers needed the support that came from collaboration with colleagues.

I remember being perturbed by Ruth Sutton's claims, or the claims of researchers, that teachers were creatures of habit – I scrawled the words "NO! – Depends on environment" and passed my scrawl to a colleague sitting next to me. She wrote back, "And what if the environment precludes change as in most cases?" I thought about writing, "Yes, you're right," but decided against admitting defeat and chose "Whatever" instead.

The final part of Sutton's presentation focused on what to do next and how to implement Assessment for Learning. She introduced her "Ten Steps to Heaven":

1. Teachers identify what they want students to learn and why.
2. State, share and show.

3. Design enabling tasks connected to purpose.
4. Develop assessment criteria with pupils.
5. Have pupils check their own work against exemplars and mark schemes.
6. Pupils articulate where they have met the criteria and where they have not.
7. Pupils identify next step for improvement.
8. Pupils encouraged and enabled to try again.
9. Pupils helped to reflect on their learning – both what and how.
10. Pupils are able and willing to critique their own learning and present it to an audience. (Sutton, 2005)

A number of colleagues described the concept of Ten Steps to Heaven as cheesy; others thought it to be a bit too much like an annoying TV advertisement. But, as far as I was concerned, Sutton redeemed herself as she accompanied the 10 steps with practical advice on how to introduce Assessment for Learning to students. Admittedly, the advice was more of "how to do it" rather than specifically "what to do." For instance:

> Use plain language (when introducing Assessment for Learning to staff and students). The importance of explicit, concrete, shared expectations: don't assume that abstract ideas are commonly understood or necessarily lead to action. Adults in school and students in classrooms all need "State, share and show." Use a weight watcher's model for improving teaching:

Big, important agreed goals;
Small steps and continual feedback;
Perseverance;
Collegial support and accountability;
Recognition of success. (Sutton, 2005)

Periodic refreshment was her second piece of advice. Realizing that some people move on and that some people tire, she encouraged leadership to provide periodic refreshment. As I considered what periodic refreshment would be for me, I thought of a get-together with colleagues, from other schools, who are trying to do similar work. For other people, it could be a review and a refocus session with their instructional leader, whoever that may be. The different ways of refreshing led to Ruth Sutton's final piece of advice: "Engage in learning conversations" (Sutton, 2005). I felt uncomfortable with the way learning conversations was presented, as an item on a staff or department meeting agenda. I imagined a department head suggesting: "Let's have ten minutes of learning conversations, then we will move on to arrangements for the Grade 10 final exam and final item is strategies to teach Atomic Theory." My belief is that learning conversations happen all the time. They are between students and teachers and among colleagues, something we promote when they are not happening and something we actively listen to and engage in when they are happening. They are how we learn about our students, how our students learn about us, and how we are able to learn to help each other to learn. They are how we learn about our colleagues, how we help each other as colleagues, and how we can help provide the periodic refreshment and encouragement that we all need.

As I left the presentation room, I felt that Assessment for Learning was compatible with my practice. It was based on listening and learning from students. It emphasized involving students in the collaborative things happening in the classroom. Through the listening, learning and collaboration, it involved discovering the path that our students need to take to be successful and accompanying our students on their journeys.

There was a temptation to begin immediate implementation in my classroom. The responses from my colleagues who attended the presentation were varied; some felt as I did, others believed Assessment for Learning was just another initiative, and others wavered. And, as Sutton (2005) warned "Initiatives is the wrong word to use; it seems to imply just one new thing after another." I was reminded that I would be greeted with similarly varied responses as I returned to school.

Puzzling

Assessment for Learning seemed to be compatible with my practice. It appeared to provide a means by which I could open the door wider to student involvement and a means by which I could leave the door wide open to student involvement. But I was unsure of this new development; I needed to know what Assessment for Learning was and from whence it came. I needed to answer the question "How do I do Assessment for Learning?" At first I thought of the question in terms of strategies used to introduce Assessment for Learning to students. However, as Assessment for Learning became a part of my practice and as I watched other teachers introduce it, the question had much more to do with a journey through time and a journey across a shifting knowledge landscape.

As I began to think of introducing Assessment for Learning, there seemed to be a shift in my wonders. It wasn't a shift away from students and their personal practical knowledge. It was an added focus, having to do with teachers' PD and their personal practical knowledge. I wondered about student involvement, teacher involvement, and collaborative curriculum making.

As an initial step I decided to look at the foundational work undertaken by Dweck (2000). My belief was that an understanding of this work would prevent a prescriptive approach and allow flexibility and differentiation—tailoring an approach to the needs of students—as Assessment for Learning was introduced.

CHAPTER 4. THE WORK OF CAROL DWECK

The Entity Theory and the Incremental Theory

As I began to spend time with Dweck's (2000) book, *Self Theories: Their Role in Motivation, Personality and Development,* my objective was straightforward: to prepare for the next leg of my journey with Assessment for Learning. From Ruth Sutton's presentation, I was aware of the importance of Dweck's groundwork, and I knew I had to gain an understanding of it before fully understanding how Assessment for Learning could be adapted to my teaching and learning and how far it could be taken. I found that the ideas Dweck used were not complex; the language not difficult. I was able to discuss the contents, as presented in the book, with my students. As always, my enlightenment was guaranteed as I taught my students a little and learned a lot.

The approach taken by Dweck (2000) considered how people's beliefs about themselves can place them in different landscapes educationally and can lead them to think, feel, and act differently in particular situations. The approach was a result of many years of research and work in many classrooms. The purpose of this chapter is to give an overview of Dweck's work and show how Assessment for Learning developed as a result of it. I believe that fellow practitioners will find merit in consulting her work.

Dweck (2000) described two self-theories of intelligence: Entity Theory and Incremental Theory. Entity Theorists believe that intelligence is more or less fixed, and that students thrive on relatively easy tasks, low effort successes, and outshining other students. Setbacks, challenges, and a more competitive environment in which there are more higher performing peers generally lead to some form of disengagement. Incremental Theorists believe that their intelligence may be "cultivated through learning"

(p. 3) and that students seek out challenges which lead to learning and enhancement of their intellectual abilities.

Dweck (2000) identified two distinct patterns as students respond to what we commonly call failure. She called these patterns the mastery-oriented pattern and the helpless pattern. The helpless pattern describes a negative response to failure in which students blame their abilities: “I guess I’m not very smart”; “I never did have a good memory”; “I’m no good at things like this” (p. 7). Students believe that the situation is no longer within their control, and the negative attitude is maintained as they participate in subsequent tasks resulting in “big drops in performance” (p. 8). Recollections of Rahim’s performance at university came to me as I read this part of Dweck’s work. He failed his first year calculus course. His despondency was not quarantined within calculus, or even mathematics. It infected all his subject areas and led him to believe he wasn’t good enough to handle university life.

Students showing a mastery-oriented approach don’t regard their experience as failure; rather, it is a problem to be tackled. They instruct themselves on how best to tackle a similar problem in future: “The harder it gets, the harder I need to try”; “I should slow down and try and figure this out.” Or they remind themselves of their prior knowledge and use it to solve the problem. Instead of a negative despondency, the mastery-oriented students become more determined to succeed and actually improve their performance by teaching themselves “more sophisticated strategies for addressing the new and more difficult problems” (Dweck, 2000, p. 10).

As a result of her experiences, Dweck (2000) offered a warning: It is often difficult for teachers to understand that bright students can adopt a helpless approach.

Most of the time, bright students are successful in completing tasks, passing tests, exams, and courses and achieving high marks. However, often they accomplish this without confronting difficulty. At some point in their education, they will meet challenges. A helpless approach will "limit their achievement of their own goals" (p. 13). I thought of Jasbir. Were his "big drops in performance" a result of his negative attitudes? Did he declare, at least to himself, "I am no good at stuff like this?" I thought of Walid and Ali. At some point in their first year of university, they realized what they needed to do—work harder. And work harder they did, their mastery-oriented approach ensured their passage through first year, exhausted but successful.

Performance Goals and Learning Goals

What are the reasons behind the different responses to challenges? Why did Jasbir and Rahim start to crumble when hurdles barred their progress? Why were Walid and Ali able to scramble over their hurdles on the way to the finish line? Dweck and Elliott (1983) proposed that students demonstrating helpless patterns and students demonstrating mastery-oriented patterns develop different goals in different situations, and these goals are the reasons for different responses. The first type of goal is a performance goal. Students with performance goals wish to show competence in the task or assignment they choose. They do this by playing safe and choosing a straightforward task or one that is difficult for their peers but which they know will be easier. The second type of goal is a learning goal. Achievement of this goal results in mastery of new skills and tasks. Sometimes the goals can be achieved at the same time. Often, however, simultaneously striving for these goals produces conflict.

Achievement of learning goals often involves meeting challenges, overcoming difficulties, and learning by making errors. Achievement of performance goals typically requires repetition of a skill already mastered. What do students do to resolve this conflict? Obviously, the student chooses between the two goals. Dweck and Elliott (1983) found that students demonstrating helpless patterns choose the performance goal. When they do poorly, they typically blame their own intellect and continue (or intensify) the helpless response. Students demonstrating a mastery-oriented approach choose the learning goal. If, initially not successful at a particular task, students with the mastery-oriented approach will continue looking for the correct strategy. These approaches do not come entirely from within: "This happens all the time in classrooms. Some classrooms emphasize evaluation and ability and foster performance goals in students. Others emphasize progress and mastery on valued tasks and foster learning goals" (Dweck, 2000, pp. 16-17).

It also happens in homes. Parents may emphasize evaluation and report card marks. It seems as though Jasbir's parents were keen on his marks but may have been somewhat blind to his overall progress. Students who hold an Entity Theory of intelligence are more likely to choose performance goals, and those holding an Incremental Theory of intelligence are more likely to choose learning goals. Dweck and Leggett (1988) showed that teachers can influence students' theories:

> We have shown that it is possible to influence students' theories about their intelligence, and that when we do so we influence their goals and concerns. Those who are led to believe their intelligence is fixed begin to have overriding concerns

> about looking smart and begin to sacrifice learning opportunities when there is a threat of exposing their deficiencies. Those who are led to believe their intelligence is a malleable quality begin to take on challenging learning tasks and begin to take advantage of the skill-improvement opportunities that come their way. (p. 26)

That is, we can steer our students towards an Incremental Theorist's approach that will result in more mastery-oriented (and less helpless) thinking and practice so that they will practice less avoidance and more perseverance. The converse must also be true: Teachers can influence students to adopt an Entity Theorist's approach and develop helpless responses to difficulties.

Aysha provided a good example. She practiced avoidance at a number of post-secondary institutions; she wished to prevent exposure of what she thought were her deficiencies. She initially tried to meet the challenges of the work, but after each failure her despondency grew until she decided to avoid any further disappointments by dropping out. She didn't know that her challenges were extraordinary. However, when the Flying Start people influenced her thinking and showed her that improvements were possible, she began to adopt a more mastery-oriented approach and take on challenging learning tasks.

Dweck (2000) offered an example of how we can influence our students by modeling. Unfortunately, the students in this example were influenced to be Entity Theorists:

As a grade school student I was shown first hand how theories of intelligence could affect students' desires to learn. My sixth grade teacher, Mrs. Wilson, was an extreme Entity Theorist. She believed fervently that intelligence (as reflected in an IQ score) was a deep-seated trait that affected all endeavors, and she conveyed this to us at every turn. She seated us around the room in IQ order. She handed out every coveted responsibility, from clapping the blackboard erasers to carrying the flag in the assembly, on the basis of IQ. Next to our names in the roll book were our IQ scores written in large black numbers.

It didn't seem to matter to her that this class was already selected for IQ—it was the top track class of a large school with a very achievement oriented student body.

The cost for the students with the lower IQ scores is clear. Here they were, after achieving well all the way through grade school, being told that they were inferior. If they took on any challenging learning tasks and made mistakes, this would only confirm Mrs. Wilson's negative view of them. But the costs for the higher IQ students were also great. They had to keep proving themselves. Every standardized test held the threat of dethroning. If they did poorly on the next IQ test they would lose their seat, their responsibilities, and the respect of their teacher. As you can imagine, it was not an environment in which students focused on seeking challenges and on their love of learning, but an environment in which validating intelligence—and trying not to invalidate it—was paramount. (Dweck, 2000, p. 26)

How do we influence students' theories of intelligence? By teaching, discussing, and modeling. And I go back to a comment made by Sutton (2005), who said: "We do a very good job of teaching our students science, maths, and English, but we don't teach them much about how they learn. And this is where we stand to make the most gains." As I reflected on many of Dweck's findings, it was clear that challenges and initial failures cause Entity Theorists to avoid a task. I wondered how Incremental Theorists cope when faced with a mandated performance goal. For instance, students have to participate in examinations and/or standardized tests in order to pass from one grade to the next, to enter high school, to pass from junior level, to intermediate level, to senior level in certain subject areas and to gain admission to college and university. In other words, to be successful, students must pursue both learning goals and performance goals as situations dictate. A study reported by Dweck (2000) showed the flexibility of Incremental Theorists in being able to switch goal orientation, from performance to learning and vice versa, depending on what the circumstance calls for:

> For Incremental Theorists, a performance goal task tests a specific skill at a specific point in time. For an Entity Theorist, the same task tests their global intelligence … this difference may create a focus on and fear of failure among Entity Theorists … it may allow Incremental Theorists to flexibly adopt and coordinate both kinds of goals. (p. 28)

Transitions

Many of the challenges that students face are associated with transitions. Many of my students, even the ones with a confidence in their abilities, find difficulty in overcoming the obstacles associated with the many transitions that occur during their school years. The transitions may be the ones from high school to post-secondary that Aysha and Jasbir initially found so impossible. Or they may be the transitions that Karen feared so much, from grade to grade, junior high to high school and even from unit to unit in the same course.

A study by Henderson and Dweck (1990) tracked students as they crossed the Grade 6 to Grade 7 threshold. The grades of the students with an Entity Theorist's approach suffered during the transition—some who were high achievers in Grade 6 did relatively poorly in Grade 7; others who showed a high level of confidence in their abilities during their Grade 6 year also did poorly.

The students with an Incremental Theorist's approach showed a marked improvement. Those students who had done well continued to do so, and the ones who had been among the low achievers did much better, some even entering the ranks of high achievers. Most interestingly, the students who had a low confidence in their ability made the most impressive gains. Henderson and Dweck (1990) suggested that although these students did not have the high confidence, they nonetheless believed they could, and did, develop the abilities required.

Henderson and Dweck's (1990) study was concerned with the transition from Grade 6 to Grade 7, so I must be careful not to over-generalize to all circumstances.

However, two observations showed me that Incremental Theorists hold a distinct advantage over Entity Theorists when dealing with transitions.

The first, reported by Aronson, Quinn and Spencer (1998), had to do with teaching Incremental Theory to a group of new undergraduate students. The researchers used film, scientists' testimonies, neurological findings, and research findings to emphasize that every time people meet a challenge and exert mental effort, they learn something new, and their brain grows neurons (in simple terms, they become smarter). In addition to the initial teaching sessions, the students received reinforcement and support throughout the year. The researchers tracked their students and a control group and found the students who had received the instruction had performed much better than the students who had not.

The second had to do with my own experience. Many memories were sparked when I read the research by Aronson et al. (1998). I recalled listening to Karen describing the anxieties she endured as she transferred from one junior high school to another, the dread she experienced as the time for high school approached, and the avoidance she demonstrated as she became convinced she wasn't smart enough to tackle high school. Karen did have other challenges to cope with. However, after her parents, teachers, administrators, and counselors listened to her and they, with her help, put some supports in place for her, she often talked about dealing with challenges, seeking out opportunities to learn, trying harder, and adapting strategies to overcome challenges. Karen began to adopt the thinking and behaviors of an Incremental Theorist. I also wonder whether she always had the promise to adopt the thinking and behaviors of an Incremental Theorist but was unable to practice her theory because she didn't have sufficient support. The work describing transitions and the two observations described above helped me to realize two things.

First, via teaching, support, and reinforcement, we can influence students to adopt a particular approach, or at least influence them to practice an approach more closely identified with that of an Incremental Theorist rather than that of an Entity Theorist. Second, I began to question the role that confidence plays in students' successes and failures. Certainly, both Aysha and Jasbir could be considered to have a high level of confidence. As a society, we have come to believe that confidence is a good thing (Damon 1995; Seligman, Reivich, Jaycox & Gilham, 1995) and I would have to agree. However, research by Henderson and Dweck (1990) and Hong, Chiu, and Dweck (1995) showed that confidence alone is often insufficient to overcome difficult obstacles.

The Role of Confidence

The research suggested that difficulties and failures still imply low intelligence to confident Entity Theorists. Dweck (2000) summarized the work:

> The whole framework [of assessment] with its emphasis on measurement and judgment gives a meaning to negative outcomes [and to effort] that is undermining to students—even if they entered the situation feeling fine [confident] about their intelligence. (p. 51)

Dweck (2000) explained that although confidence is a good predictor of academic achievement, it is a good predictor only when the students are not facing difficulties. For instance, Jasbir and Aysha radiated confidence as they achieved academic success, year after year, at junior high school and senior high school. Their confidence journeyed with them to university, but, in the face of difficulties, confidence was not enough. Walid and Ali, both fearful of their pre-engineering year at college, altered strategies, doubled their efforts, and gave up their part time jobs in order to succeed. Fahim and Rahim both expressed their confidence, each in a different way, as they entered university. Fahim approached university as he had approached school: He worked hard, worked through his rare failures, asked for help in re-strategizing when challenges came along, and learned from those trials. Rahim's confidence plunged after failing a calculus course. The avoidance he occasionally showed at school became evident as he expressed a desire to solve his problem by dropping out. He distanced himself from the problem by becoming convinced that he wasn't cut out for university. It is when we look at difficult transitions or situations fraught with failure that we find that confidence loses its power to predict (Henderson & Dweck, 1990).

It appears that Fahim, Walid, and Ali exhibited an approach more closely associated with Incremental Theory. They sought learning opportunities, worked harder to overcome obstacles, and looked for new strategies to cope with and learn from their few failures. Dweck (2000) suggested:

> One reason this group [Incremental Theorists] is so hardy is that when you are pursuing learning goals, confidence in your existing ability is not all that critical. After all, you are looking to increase your ability, not to demonstrate that you

> already have it. A modest opinion of your existing skills may even spur more of a desire to increase them. (p. 52)

Dweck summarized by suggesting that failure undermines, even condemns students working within an Entity Theory framework; while in the learning focused Incremental Theory framework, failure informs learning. Because failure is used in such a positive way in the Incremental Theory framework, it loses much of its negative meaning.

Haunting Questions

It was obvious from Dweck's (2000) work that an Incremental Theorist's approach is advantageous for students and teachers. However, several questions still haunted me: What can teachers do to encourage students to think within an Incremental Theory framework? What do teachers (and parents) do that force students into an Entity Theory framework? Closely tied to these questions is a wonder concerning the permanency of students' situatedness within either an Entity Theory or Incremental Theory framework. It is not a rare occurrence for students (or even adults) to say, "I can't do math (or physics or chemistry)" suggesting that their intelligence is fixed, they can't learn any more about a particular subject area. Occasionally, we also hear, "I can't learn from that teacher" or "that student will never learn in my class," indicating that, in that particular environment, intelligence is fixed, zero learning will take place, and the typical result is avoidance—the student drops out or is removed from the class. In such instances, it appears that the students have adopted, or been influenced to adopt, an Entity Theory approach. That makes me wonder about the permanence of a students' hold on an Entity Theory approach or an Incremental Theory approach.

A classic example is Dweck's (2000) story about her sixth grade teacher, Mrs. Wilson, who must have created hundreds, if not thousands, of Entity Theorists during her teaching career. We can only hope that the seventh grade teacher was one who encouraged students to adopt learning goals. Dweck offered: "Personality is dynamic. When a situation strongly highlights a different belief, goal, or mode of action, it can tip the person in that direction, at least temporarily" (p. 79).

Imagine a teacher, maybe similar to Mrs. Wilson, who has decided that one or more of her students has fixed, low to moderate intelligence. She clearly dwells in the realm of the Entity Theorist, and she decides, as with other Entity Theorists, that the potential for improvement for this group of students is limited. This will have a considerable effect on process and content. And imagine the spectacular effect on the students (Brown, Palincsar & Purcell, 1985; Howard, 1995; Rosenthal & Jacobson, 1968). Now, we can imagine ourselves as Grade 10 teachers. It is September and we are greeting our new Science 10 students. We have seen the results of the Grade 9 achievement tests. It appears that a student has shown a lack of skills and knowledge. Do we immediately pass judgment on future potential? Or do we investigate further, maintain (adopt) an Incremental Theory framework and spend the significant time and effort required to demonstrate that "in an Incremental Framework currently low skills do not preclude future high skills" (Dweck, 2000, p. 84). I later describe a situation at my school where, for years, we adopted an Entity Theorist's approach to Science 14 and the students who took that course. Eventually, we grasped an opportunity to create an

Incremental Theory framework around the course and demonstrate that currently low skills do not preclude future high skills.

Praise, Criticism and Self-esteem

Using Dweck's (2000) work and reflecting on my own classroom experiences, I came to some realizations about students' confidence and how teaching, discussing, and modelling can encourage a student to adopt an Incremental Theorist's approach. For instance, praise and criticism can alter a student's level of confidence, which in turn can affect teaching and learning. We can allow our own imaginations to speculate on the criticism offered to Jasbir. I have documented some of the frustrations and annoyance targeted at Aysha as she demonstrated avoidance at one post-secondary institution after another. I am sure that self-criticism also played a major role. After all, self-criticism, in a destructive sense rather than in a constructive sense, is a typical behavior within an Entity Theory framework. At other times, praises were heaped on Jasbir and Aysha. Does criticism and praise and the ways in which the criticism and praise are offered push students toward adopting Incremental or Entity Theory approaches? I know I have to be careful how I frame criticisms in the classroom and I must remain cautious and alert to the potential for undermining positive contributions. But do I take as much care with my use of praise? Dweck (2000) raised the specters of criticism and praise and offered some insight into how each can be used to the detriment of students and how each can be used beneficially. Dweck's research showed that parents' and teachers' criticisms can create vulnerability or hardiness. One of the findings may not have exorcised the haunting caused by my concern surrounding the permanency of a student's hold on incremental theory, but it did help me to view the apparition behind the haunting:

> What studies like this show is that no matter what tendencies children enter a situation with, if the situation is powerful it can mold their patterns of reaction. It can make them, for the moment, more helpless or more mastery-oriented in their reactions. (p. 108)

However, it also prompted further questions. What does "for the moment" mean? How long does the moment last? Does it last to the next class, to the next day, to the next semester, as it did with Rahim, or beyond? Is there some residual memory of that powerful situation which remains or returns with an appropriate prompt? Would a school-wide, consistent understanding and implementation of the notions presented by Dweck and the ideas developed from them solve the problem? I entertained the notion of a whole school approach. I wondered how successful, how strong, how persuasive, and how willing an administration and a school's instructional leaders could be in encouraging and persuading a staff (in excess of 80 teachers in a large school) to comply.

After my wandering around the larger issues, my attention returned to criticism and praise. Dweck found that criticism resulting from measuring a child's traits or from judging the child as a whole made children more vulnerable as they encountered future setbacks. Some children learn to focus on performance, and poor performances generate self-doubt and negative conclusions. "Criticism that reflected on the child as a whole created the entirely helpless pattern of self-blame, negative affect and a lack of constructive solutions" (2000, p. 111). This is not only relevant when one person criticizes another but also when a child engages in self-criticism. When I read this I immediately thought of Aysha. She obviously tried to analyze, for herself, what was happening when she dropped out of three different post-secondary institutions. I can just imagine the self-questioning: "How is it that I can't handle the work? Where is the fault? Are three different universities all at fault? Or is it one individual?" And of course the self-criticism followed: poor performance and self-doubt that led to negative conclusions which culminated in the question, "Dad am I dumb?"

In contrast, criticism which focuses on effort and strategies pushes children toward a more mastery-oriented approach to difficulties. Dweck's (2000) work emphasized the need to focus criticism on strategies and efforts, when necessary, rather than on individuals. As I teach children to self-analyze and be self-critical, I must ensure I lead them to a constructive way to criticize. I do not need to duplicate Aysha's pain.

Similarly, praising a child by telling her she is smart after she has successfully completed a task is a focus on the child as a whole. Is this teaching children that they can measure themselves, as a whole, from their performance? And does this leave children open to judging themselves, as a whole, after an instance of failure at some future time? I wasn't as sure about the answers to these questions as I was about similar queries concerning criticism. From past experiences, I was sure that praising a student's ability would boost performance and self-esteem. Dweck (2000) acknowledged research dealing with trait-oriented praise and simultaneously acknowledged my uncertainty regarding trait-oriented praise. However, she posed the question: "What happens when that student hits difficulty?" (p. 113). Apparently, the same research lacked the ability to answer the question, just as I did. Dweck designed studies to answer the question. The findings were "very clear" (p. 113). Students who received trait-oriented praise such as "You're a good boy/girl," "You did a good job," or "You're very good at this" (p. 113) were the ones most likely to avoid challenging and learning goals and the ones most vulnerable to the effects of future failure. In other words, they adopted the helpless patterns of Entity Theorists. The students praised for their effort and development and use of alternative strategies were the most mastery-oriented. That is they sought challenges that offered opportunities to learn.

In concluding her thoughts on praise and criticism, Dweck (2000) asked the question, "Is intelligence praise always bad?" (p. 125). She answered the question using a story from her home life:

> I will confess that not long ago, I slipped up and gave intelligent praise. My husband had just done something so ingenious that before I could stop myself out of my mouth popped "You're brilliant!" Knowing about our intelligence praise work and seeing the horrified look spread across my face as I realized what I had done, he sought to comfort me. "I know you meant that in a purely incremental way," he told me. "You knew I had given this a lot of thought and tried a lot of different strategies, and that's what you meant." (p. 125)

My final wonder concerned my students, knowing that many of them came to me with a firm and deep rooted Entity Theory. By introducing these ideas I felt that I would be forcing my students through yet another transition. Not from junior high to senior high or grade to grade but, for some, from one way of doing things to another, very different way of doing things. I felt I would be pushing students to take risks rather than seeking the safe way. They would be pushed to seek out challenges rather than avoid them, and to adopt learning goals rather than performance goals. Looking back from the present day, I found that some of my students relished the opportunities to be encouraged to do what their Incremental Theory approach urged them to do. I know some of my other students struggled. It was awkward for them to do what their Entity Theory approach discouraged them from doing.

Dweck (2000) showed that students with an Entity Theory approach do not tolerate transitions very well. I was sure at the time that where we were going would be beneficial in the long term. I also knew that the changes would take time to implement, be accepted, and become effective but I had a fear of doing more harm than good during this period of transition.

As I read the final guidance chapter in Dweck's (2000) book, it appeared that "Coach" Dweck was giving her final pep-talk before the big game. She focused on children's self-esteem. The delivery seemed a little harsh, but I believe she was aiming at the practices which have often failed to allow students to thrive or failed to offer students the opportunities for long-term success and the potential to take more responsibility for their own learning.

Often, teachers' beliefs regarding self-esteem led to praise that may not have been helpful. "These beliefs lead us as adults to lie to children—to exaggerate positives and, to sugar-coat negatives, or to hide negative information entirely. We fear that negative information or criticism will damage self-esteem" (Dweck, 2000, p. 127). Dweck continued by suggesting that, in this way, teachers and parents are boosting egos rather than boosting effort. That is possibly true, but more importantly we are not taking opportunities to show children how to learn and how to benefit from overcoming obstacles that are in their way. Not only are we adopting an Entity Theory approach, but we are encouraging our children to adopt a similar approach.

> Moreover, it's a recipe for anger, bitterness, and self-doubt when the world doesn't fall over itself trying to make them feel good the way parents and teachers did, or when the world doesn't accept them quite as they are, or when the world makes harsh demands before it gives up its rewards. And what about setbacks, failures and rejections—all the things that often precede success in the real world? How can they possibly know what to do with these? (p. 128)

Self-esteem of Entity Theorists is at a maximum when they complete tasks without much effort and when they perform better than their peers. When challenges are presented, avoidance usually occurs or excuses are found to prevent loss of self-esteem. However, for Incremental Theorists, self-esteem "is a way of experiencing yourself when you are using your resources well—to master challenges, to learn to help others … it's not about displaying your traits advantageously or showing that yours are better than someone else's" (p. 128).

I have happy memories of the looks on the faces of Walid and Ali as they came to see me at the end of their first year of university. They both looked exhausted, but the contentment shone in their smiling faces because they had mastered the challenges by helping each other and by using their resources well.

Teachers and parents can promote an Incremental Theorist's positive experiences of self-esteem by teaching, modeling, emphasizing learning, effort, and strategies and by encouraging acceptance of challenges that help children achieve learning goals. One of the greatest benefits of working in an Incremental Theory framework, according to Dweck (2000), is being able to tell children the truth. If students don't have the knowledge or skills or they're behind where they should be, it should not be considered shameful. It does not mean that they must hide themselves away when they experience what was termed failure, nor does it mean they should hide from the challenges that have caused them to think of themselves as failures. I wonder what Aysha's response would have been had she been able to respond to her challenges within an Incremental Theory framework. Would Jasbir have been able to turn things around quicker if he hadn't been pushed into an Entity Theory framework? And would Rahim have been spared the shame of failing his calculus course if he had been encouraged to adopt an Incremental Theorist's approach? From an Incremental Theorist's perspective, if his marks were low, he would have sought a way out through more effort, a different work strategy, or he may have been encouraged to look for help in order to change the way he approached the course content.

I take the more difficult route, students are expected to expend more effort, use alternative learning strategies, or develop new ones. I must provide appropriate tutoring and teaching which will allow students to use alternative learning strategies and collaboratively develop new ones. It is important for me to be aware that an Entity

Theory approach stresses outdoing one's fellow students; therefore, improvements and learning are not as important as doing better than peers, and students become rivals. An Incremental Theory approach stresses mastery of new tasks and helping others become masters of those new tasks—"thus within this framework, rather than being rivals for self-esteem, peers gain self-esteem by cooperating and facilitating each others' learning" (Dweck, 2000, p. 131).

Puzzling

Carol Dweck's (2000) work provided some insight into the puzzle. There was some explanation of the different orientations to learning. It helped to explain the difficulties that Rahim experienced as he undertook the transition from high school to university. It also helped to explain why he thought himself a failure and wanted to drop out and why Fahim was able to handle the transition to and the work at university. I understood more of Jasbir's and Aysha's crumbling at university. But at the same time as a solution to one part of the puzzle came into view, other pieces were added which clouded my perspective. Dweck's work showed the benefits of adopting an approach similar to that of an Incremental Theorist and the disadvantages of adopting an approach similar to that of an Entity Theorist. I wondered what I as a teacher could do to encourage students to think within an Incremental Theory framework rather than think within an Entity Theory framework. I wondered what I was doing and what others were doing that pushed students towards an Entity Theorist's approach. I think Jasbir's experiences cleared some of the clouds surrounding the answer to that question. Closely associated with those questions, I wondered how permanently students were situated within one or other framework, how a whole school approach could prevent students from being fixed within an entity theory framework, and how such a whole school approach could be adopted. Finally, Carol Dweck's work had shown how difficult transitions were for some students, particularly those with performance goals. As my colleagues and I were contemplating the introduction of Assessment for Learning into our classrooms, how difficult would that transition be?

CHAPTER 5. NARRATIVE INQUIRY

Why Narrative Inquiry?

> One theory in educational research holds that humans are storytelling organisms who, individually and socially, lead storied lives. Thus, the study of narrative is the study of the ways humans experience the world. This general concept is refined into the view that education and educational research is the construction and reconstruction of personal and social stories; learners, teachers, and researchers are storytellers and characters in their own and other's stories. (Connelly & Clandinin, 1990, p. 2)

Why did I choose narrative inquiry? I was seeking a greater understanding of the meanings of Assessment for Learning in my classroom and wished to share that understanding. Writing, explaining, and telling my stories, to this point, had led to reflection, re-thinking, and re-storying which in turn led to a greater understanding of my classroom experiences with Assessment for Learning. I was able to stop and take a second or a third look at what had gone before. I believe the one or more re-tellings, elapsed time, and being able to step away from the classroom via my recollections collectively provided some new, different, and deeper views of my stories.

I sought to understand the shifting, the pleasant, and the painful that took place among teachers, learners, and curriculum as Assessment for Learning was introduced to teachers, students, and the classroom. I was also trying to provide a guide for others whose desire it was to follow a similar path.

Bateson (1989) suggested that the telling and re-telling of stories "is fundamental to human search for meaning" (p. 34), and Paley (1990) commented, "None of us are to be found in sets of tasks or lists of attributes; we can be known only in the unfolding of our unique stories within the context of everyday events" (p. xii).

The telling and re-telling of my stories added to the meaning of my classroom experiences. As my stories unfolded, they added to my way of knowing, thinking, and understanding.

> At one level, story is a mode of knowing that captures in a special fashion the richness and the nuances of meaning in human affairs. We come to understand sorrow or love or joy or indecision in particularly rich ways through the characters and incidents we become familiar with in novels or plays. This richness and nuance cannot be expressed in definitions, statements of fact, or abstract propositions. It can only be demonstrated or evoked through a story. (Carter, 1993, p. 6)

As I gained knowledge and meaning from stories of my own practice, I sought to uncover the stories of others, thereby gaining knowledge and meaning of and from their practice. "People by nature lead storied lives and tell stories of those lives" (Connelly & Clandinin, 1990, p. 2). As a narrative researcher I attempted to describe those lives, "collect and tell stories of them, and write narratives of experience" (p. 2).

In conducting my narrative inquiry, I worked as a learner, teacher, researcher, storyteller, and character in my own and others' stories within a three-dimensional narrative inquiry space, with "temporality along one dimension, the personal and the social along a second dimension, and place along a third" (Clandinin & Connelly, 2000, p. 50).

Working in a three-dimensional narrative inquiry space, we meet ourselves in the past, present, and future (Clandinin & Connelly, 2000). Through narrative inquiry, my telling of stories from the past becomes a re-telling of stories that have gone before. My telling has a bearing on the future, but a different bearing from that of the previous telling. In re-telling, they are told from a different perspective in time and from a different experiential perspective.

When I consider Jasbir's story and Aysha's story, I think of how different their stories were at different points in time. As Jasbir and Aysha progressed through school, there stories were pleasant, with words such as achievement, success, and pride populating the pages. As they entered post-secondary institutions, frustrations were seen to be creeping into their stories and even mistrust. A story from the perspective of post-secondary achievement would once again show pride but this time a more profound pride, because along with pride, came an understanding of the obstacles they overcame—a learning disability for Aysha, intense pressure from familial expectations for Jasbir. I have retold Aysha's and Jasbir's stories, and their stories are intricately interwoven with my stories. As their stories were open for inquiry and re-telling, my stories are open for inquiry and re-telling at each point in time.

The privilege of being a part of their stories benefited my personal practical knowledge. I felt and saw the benefits every day in my classroom, as I still feel and see them. My past stories benefited me by informing my present stories, and as my present changes, my perception of my past stories undergoes some evolution. In all of our presents, we have some anticipations for our futures—futures informed by present circumstances, environment, feelings, and emotions. These anticipations are informed by our pasts and they also inform our presents. We are not impartial when looking to our futures. Our presents are in dynamic equilibrium, informing and being informed by our pasts and our futures.

"We work within the space not only with our participants but also with ourselves" (Clandinin & Connelly, 2000, p. 61). My work ebbed and flowed from the personal to the social. My intended audience is a community of teachers wishing to embark on a similar journey to mine. I felt that this community may benefit from my sometimes stumbling journey. The people who populated my stories were from communities of students and communities of teachers. In their telling (and my learning), their stories revealed something of their communities, something of their individuality and personality, and, in the re-telling (as I try to pass on what I have been taught), something of my individuality and personality.

Place, the third dimension in the three-dimensional narrative inquiry space, is a dimension I consider to be physical and emotional. For instance, Jasbir's physical places were high school and university separated by only a few months and a few miles. Yet the emotional places he occupied at high school and at university were miles apart. High school was a place to be happy, to achieve, to be successful, and to be loud. University was a place which made him quiet, forced him into failure, and led him down a path of deceit. The same physical place can be a different emotional place for different people: High school was exciting for Aysha as she was involved in athletics, bewildering for

Sarah as she tried unsuccessfully to communicate without help from a speech therapist, frightening for Karen as she tried to contend with her challenges, and completely frustrating for Leah as her teachers failed to meet the challenge of her challenges.

As my research unfolded, I wanted to continue to understand my spaces and the spaces of my participants within the research. I realized that, in the telling and re-telling of my stories and the stories of my storytellers, our stories became part of one another, belonged to one other. Because of my involvement with Assessment for Learning, I believe I developed an understanding of others' journeys. However, I also heeded the warnings and was alert to the possibility of boundary tensions (Clandinin & Connelly, 2000). There were some tensions, but overall my involvement with Assessment for Learning was an educative experience and continues to be so. I therefore came to this work with "views, attitudes, and ways of thinking about inquiry" (p. 46). There was a danger that my history with Assessment for Learning would cause this work to cross a boundary or, at least, create tensions at a boundary with the actual inquiry. For instance, I may have put a positive spin on a potentially negative aspect of Assessment for Learning because of my prior (positive) experience. I believe I did remain guarded. I believe I allowed my storytellers to tell their own stories, not the stories I would have wanted them to tell. I listened to what my storytellers were saying rather than listened to how it fit into what I thought I already knew. I listened and did not allow my assumptions to prevent me from understanding the significance of what my storytellers were saying about their experiences and I worked against being predisposed to look for an outcome that paralleled my narrative of experience (Raymond, 2002).

Conducting the Inquiry

In the first stage of this written work, in chapter 1, I attempted to show how my students pushed me in the direction of Assessment for Learning. In the three-dimensional inquiry space, I traveled back in time to different schools and different classrooms and was taught by many different teachers and school children, as well as my own children. This past and these relationships highlight

> The importance of acknowledging the centrality of the researcher's own experience—the researcher's own livings, tellings, retellings, and relivings. One of the starting points for narrative inquiry is the researcher's own narrative of experience, the researcher's autobiography. This task of composing our own narratives is central to narrative inquiry. (Clandinin & Connelly, 2000, p. 70)

In chapters 2 and 3, I described how I gained a deeper understanding of the curriculum and through that understanding how I began to unravel some of my students' puzzles. I also described how I began to see possibilities for the use of Assessment for Learning in my classroom. I sensed that Assessment for Learning could be used in many different contexts but not without modification to suit those contexts. Assessment for Learning is a practical application of self-theories and motivational theories described by Ames and Archer (1988), Dweck (2000), Elliott and Dweck (2005), Epstein (1990) and Heckhausen and Dweck (1998). I felt I needed to know more about Assessment for Learning and began to explore its origins in the work of Carol Dweck, presented in chapter 4.

Chapters 6 and 7 form the second stage of my narrative inquiry, the story of how Assessment for Learning came to my classroom. In this part of my story, I worked within the three-dimensional narrative inquiry space, telling the story of the past that framed my present, moving "back and forth from the personal to the social" (Clandinin & Connelly, 2000, p. 70), and situating the story in place. Using this as the narrative foundation for my work helped me to situate myself within the layers of stories. I peeled back the first layer and revealed my working landscape, specifically, a place of tension on that landscape "outside of (my) classroom (where) knowledge is funneled into the school system for the purpose of altering teachers' and children's classroom lives" (Clandinin & Connelly, 1996, p. 25). The second layer of stories revealed how tensions were gradually removed through searching, understanding, and trial. The final layer of stories situated Assessment for Learning in my working landscape, in the landscapes of students, in curriculum, and in the curriculum of students and school.

For the third stage of my narrative inquiry, I invited two teachers, Roxanne and Monique, to participate in conversations about their experiences with Assessment for Learning. Roxanne began her career as a Language Arts teacher in a northern community several years ago. She returned to the city and worked in adult education prior to securing a position at one of the city's high schools. She accepted the position of department head, English, and began teaching at her present school at the beginning of the 2004-2005 school year at the same time I did. When Roxanne and I arrived at the school, Monique had been there for a number of years. She started teaching at the school on a temporary contract around 6 years ago, and stayed as she was offered probationary and full time contracts. As I began to consider who my participants would be, I also contemplated how

I would enter the field and how I would develop and maintain relationships with participants. My desire was to create a space so that the teachers' voices could be heard; I wanted the stories to be their stories. My goal was for the teachers to maintain ownership of their stories. My ideal preference was for this work to be our work.

I met with Roxanne and Monique individually. They told their stories of how Assessment for Learning came to our school and the parts they played in its introduction. Our first meetings lasted several hours. Their passion for teaching and their caring for students shone through as Roxanne and Monique told their stories. After I transcribed their audio taped stories, we discussed our recollections and made some minor adjustments. The next step was the transition from field texts to research text. My greatest fear was that I would lose my participants' voices, their passion for teaching and their caring for their students.

Common threads weaved through our stories. The most recognizable and most common were our stories of PD and the Assessment for Learning strategy that became known as No Zeroes. I pulled these common threads together and composed a play. The result of our work is presented in chapters 8 and 9.

Clandinin and Connelly (1990) described what I aimed for as collaborative research "which requires a close relationship akin to friendship" (p. 4). Noddings (1986) viewed collaborative research as research that bonds all participants together in a caring community in which empowering relationships develop over time. My goal was to empower my participants and to offer a space where their voices could be heard and where they could tell their stories. Elbow (1986) suggested playing a believing game. I think what Elbow had in mind was for the researcher to view the storied events from the perspective of the narrator. I wanted to encourage openness and caring in the telling and sharing of our stories so that we would be open to the possibility of re-telling through further collaboration and through inviting others to join our caring community and our collaborations.

"In narrative inquiry, it is important that the researcher listens first, and it is the practitioner who first tells his or her story" (Clandinin & Connelly, 1990: p. 4). This does not mean that the researcher sits in silence; it means that the participant is given opportunity, encouragement, time, and space to be a storyteller. When I asked myself how I would provide opportunity, encouragement, time, and space, the answer was very similar to answers my students sometimes give me: It depends. It depended on my storytellers' history and stories.

Opportunity, Encouragement, Time and Space to be a Storyteller

Coles (1989) told the stories of the relationships he developed with two of his patients during his term as an intern in a hospital's psychiatric unit. His patients had been silenced by formal questioning. One patient, who had answered all the formal questions that were normally asked, gave answers she thought the questioner wanted to hear when he asked follow-up questions. Another patient simply refused to give any information. The young intern gave both patients the opportunity, encouragement, time, and space to be storytellers. These were extreme cases that Coles described, and I am not suggesting any resemblances between teachers, particularly my storytellers, and psychiatric patients. I am merely using the story to emphasize the need to be aware, alert, and open to possibilities when it comes to encouraging and giving opportunity, time, and space to storytellers.

The doctor had taken the first patient's personal, family, social, and clinical history, but it didn't tell him enough. So "he had something else in mind, though [he] wasn't sure exactly what" (Coles, 1989, p. 10). In the doctor's own words,

> I asked her to try to tell me a few stories about her life—"moments in it (that) you remember as important, as happy or sad." Then I sat back and waited. I was drawing in breath, bracing myself, when my patient in a flat, scarcely audible voice, told me she'd had only one or two happy moments in her entire life. She had chosen to respond to those two words "happy" and "moments." "Why don't you just tell me a story or two?" I saw a noticeable and somewhat dramatic change take place in a patient … she smiled … her story poured from her. (Coles, 1989, p. 11-12)

From her story came the events that mattered, the reasons she became a patient, the things the doctor needed to know. The doctor's supervisor commended him on his work and told him that he had played the believing game (Elbow 1986); he had collaborated with his patient and heard the patient's story. The supervisor further suggested that when formal language is adopted by the questioner, the patient will not tell his or her own story but the story that he or she thinks the questioner wants to hear.

Coles' (1989) second story tells of a young man who had attempted suicide. The young man refused to answer the "apparently innocuous questions that were intended to get us going as talker (him) and listener (me)" (p. 16). The young man simply started asking the doctor questions of his own about the doctor's story. The doctor became irritated and the young man was steadfast in his refusal to communicate: "You tell me your story, and I'll tell you mine" (p. 16). Stalemate. Again, in the doctor's own words,

> I decided to break the impasse: I told him about my early interest in literature, my later interest in pediatrics, my recent one in psychiatry; and I gave him some idea of how those interests had emerged from the life I'd lived. When I was through with my story, which took five minutes or so, he promptly began his. (Coles, p. 17)

The young man needed the encouragement of the doctor's story in order to tell his own. As well as offering different examples of opportunity, encouragement, space and, time for storytelling, the author offered advice to the story collector and listener; he suggested collaboration and playing the believing game. He emphasized the responsibility of the listener in re-telling the story: Although the re-teller will add something to the re-telling, it is a responsibility to re-tell in a way that respects the original teller. The doctor shared,

> When I put the youth's history into a theoretical formulation, the familiar phrases appeared, none of them surprising, each of them applicable not only to that person but to many, many others. I was again consigning him (and me) to territory populated by many others. No wonder so many psychiatric reports sound banal; in

> each one the details of an individual life are buried under professional jargon. (Coles, 1989, p. 17)

I intended to engage in a series of conversations with my storytellers. As Coles guarded against forcing his patients' stories into a theoretical and formulaic framework, I too wanted to guard against forcing the stories from my community into a similar framework. My aim was to preserve the rich details and personal practical knowledge by exploring the stories of my participants as they reconstructed their teaching using Assessment for Learning. I sought to understand the histories of the storytellers and how it was interwoven and, maybe in conflict with the reasons behind the introduction of Assessment for Learning. I sought to tell their stories of the implementation of Assessment for Learning in their school and in their classrooms. I wanted to view Assessment for Learning from their perspectives, how the meaning evolved to the present and where they foresaw Assessment for Learning going in the future.

As will become evident, Assessment for Learning had a considerable effect on my teaching, and because of the importance I place on my teaching, it affected me personally. It also affected those around me, in different ways and at different times. Initial faltering steps quickly gave way to realizations of compatibility as implementation of Assessment for Learning took hold. As I introduced some Assessment for Learning strategies, it was like greeting old and dear friends. My colleagues who looked on: Some were eager to try, others were eager to try after learning from my mistakes and my successes, some were ready to help me get up when I fell, and a few were not interested. Many of my students were intrigued and excited at the prospect of joining in this new game, because that's what they felt it was: a serious game to some, but a game nonetheless.

I did not anticipate difficulties in gaining entry into my research field. My participants were colleagues with whom I shared mutual professional respect and friendship. However, during my research we explored a different relationship. Together, we walked into the midst of existing relationships; strong friendships developed over a number of years. Together, we walked into the midst of a three-dimensional narrative inquiry space that was a distinct part of our individual narratives. Together, we walked into the midst of "temporal storied flows" (Clandinin & Connelly, 2000, p. 65). We negotiated different relationships to the ones that existed, "one of the things that narrative inquirers do is continually negotiate their relationships" (Clandinin & Connelly, 2000: p. 73). Yet we maintained our relationships built on friendship and professionalism. How did we make this work? As we engaged in our negotiation, we attended to the advice given by Clandinin and Connelly (2000) that part of negotiation is explaining intentions. In other words, we maintained openness and honesty. As our collaboration developed and as my work developed, a shaping of purpose occurred which entailed further explanation and clarification.

Connelly and Clandinin (1990) likened beginning work on a research project to beginning a new story. As with all things new, there was excitement and enthusiasm. From the beginning, questions bubbled through my mind: Will my storytellers bring a similar personal story to mine? How were their communities affected? Was it a similar experience to mine? Did the same or similar tensions exist? Where were their tensions, at the boundaries of collegial practices, at the boundaries of hierarchies, or at the boundaries between teacher and students? What was felt in each of their classrooms, by them, by their students? “In the construction of narratives of experience, there is a reflexive relationship between living a life story, telling a life story, retelling a life story, and reliving a life story” (Clandinin & Connelly, 2000, p. 71). This quote, which gives a sense of the patience required to allow narratives to grow and stories to be told and re-told, was also a reminder to temper my enthusiasm and excitement.

The place dimension of our narrative space intrigued me from my past to my present. I was excited to see how the re-telling of my story threw new light on the significance of place and how it affected the telling and re-telling of my story. In fact, the story was different as it was re-told in different places: my classroom, my classroom one year later, a conference, an out-of-district PD day, the summer institute at the University of Alberta, an intra-district gathering of teachers, and an information session with administration from my school. How did place affect my participants’ stories? Did they remain the same? Did certain aspects come to the fore, others pushed to the background?

I aimed for the “narratives of participant and researcher [to] become, in part, a shared narrative construction and reconstruction through the inquiry” (Connelly & Clandinin, 1990, p. 5). Raymond (2002) enlisted the help of her participants as critical friends. “A critical friend, as the name suggests, is a trusted person who asks provocative questions, provides data to be examined through another lens and offers critique of a person’s work as a friend” (Costa & Kallick, 1993, p. 50). I engaged my storytellers as critical friends. I asked them to be critical friends as they read my re-telling of their stories. From my perspective, their personal, practical, and professional knowledge added to the richness of my re-telling of their stories. As we read and as we engaged in conversation and reconstruction, I believe that my re-telling of their stories became our re-telling of our stories in the true sense of a collaborative inquiry.

Creating Field Texts …

> There are tensions and dilemmas in studying the parade of which we are a part. Some worry that if inquirers do not become fully involved in the experience studied, they can never truly understand the lives explored. Others feel that by becoming fully involved, objectivity will be lost. (Clandinin & Connelly, 2000, p. 81)

I already admitted to a strong social and professional relationship with my participants and to a desire and commitment to participate in a collaborative inquiry. I was intimately involved in the experience studied, which was introduction of Assessment for Learning into our classrooms. Was my objectivity lost? Again, I look to Clandinin and Connelly (2000) for the answer:. “The reason that we believe that this intimacy and the ensuing possible loss of objectivity is not so serious after all is the presence of field texts and what attention to them entails (p. 82). Field texts are the vehicles that an inquirer can use to travel back and forth between the intimacy of the field and the cool observation of writing and reading field texts (Clandinin & Connelly, 2000).

My autobiography formed a significant part of my work or at least that part of my autobiography with a direct connection to my work in Assessment for Learning. Autobiography is a way to understand our lives as lived and to try and pass on that understanding to others. In composing the story of my associations with Assessment for Learning, I used autobiographical writings from university courses, PD activities and courses offered by my school district; family stories; family photographs which served to jog my memory; journal writing—and I wish my resolve to write journals was stronger; and documentation from school including lesson plans, changed lesson plans, hand-outs from PD activities, presentation notes, and observations of students, teachers, and administration.

As I collaborated, I offered examples of my field texts to encourage participants to use similar effects so as to construct field texts as teacher stories.

... And Then to Research Texts

Clandinin and Connelly (2000) suggested that we keep in mind two questions as work is transformed from field texts to research texts: Who cares? and So what? In other words: What was the significance? and What was the meaning? The authors used two simple phrases as a guide for justification purposes in research texts: "Find a way of communicating with people" and find "points of contact between our interests and theirs" (p. 121). I used the questions and phrases as guides in transforming field texts to research texts.

I concluded the Questions and Puzzles section of chapter 3 with:

> These were my wonders and questions which I wished to explore both in my own stories and the stories of other teachers. Although I have used a past tense to introduce my wonders, they are still occurring and will continue to occur in the

future together with many other wonders. In addressing these puzzles and attending to these wonders, I am expecting my students and my practice to continue to be generous with their gifts of wonders and puzzles.

I wanted to convey a sense that "the phenomena in narrative inquiry are a kind of shifting ground" (Clandinin & Connelly, 2000, p. 126) and show that I tried to provide spaces to name the inquiry phenomena at many points as I moved back and forth from field to field text to research text. As I composed my research text, I shifted away from the close contact with my participants (from telling and living stories) to re-telling stories through research texts. In negotiating that move, I preserved the professional relationships and friendships by providing frequent updates. I preserved the sense of collaboration by seeking clarification and by asking questions to confirm or refute my understanding of meaning as I allowed myself "concentrated time for writing research texts" (Clandinin & Connelly, 2000, p. 130). Finally, we (my participants and I) preserved our professional relationships and friendships as we collaborated and engaged in negotiating the research texts during our reading and re-reading of my re-telling of their stories.

As I moved from field texts to research texts, my most difficult task was to answer these questions: What are the meanings? and Why do they make a difference? Clandinin and Conelly (2000) write of this difficulty: "These questions are made more complex as we ask them in the midst of trying to negotiate a new way of being in relation with our participants, and as we fight against our desire to let field texts speak for themselves" (p. 130). To help in this task, I read and re-read, coded, positioned (in relation to our three-dimensional narrative inquiry space), constructed summarized accounts, and coded narratively: names, action, places, interwoven and interconnected storylines, and emerging tensions (Clandinin & Connelly, 2000).

Ethical Considerations

I obtained the informed consent of my participants before beginning our collaboration. I made it clear to my participants that they had the right to withdraw from the study at any time of their choosing, and I guaranteed the confidentiality and anonymity of their contributions. Also, participants had free access to the dissertation and the right to change sections resulting from our collaborative efforts.

As I was thinking about ethical concerns regarding my collaborators, I considered and wondered about my duties and responsibilities over and above the formal requirements of the University of Alberta. I again rely on Clandinin and Connelly (2000) to put words to my wonders:

> Thinking about ethical approvals as meeting the university ethical guidelines for human subjects, although technical, detailed and legalistic, does not, however, allow us to consider relational issues, which in narrative inquiry underpin the entire inquiry process. (p. 171)

The relational issues were at the forefront as we began our collaboration. As a result of the discoveries we made, there were some shifts in purpose. I explained the purpose of the study to my participants from the beginning, provided frequent updates, and maintained close contact by seeking clarification and asking questions to confirm or refute my understanding of meaning. I suggested that my goal was to maintain an ongoing collaborative relationship. Collaborative research required a relationship that is similar to friendship (Connelly & Clandinin, 1988). Prior to beginning the research I enjoyed a bond of friendship and a professional relationship with my participants. I considered myself privileged that my participants agreed to collaborate. I had a great responsibility, as a researcher, to my collaborators. “We consult our consciences about the responsibilities we have in a friendship, we need to consult our consciences about our responsibilities as narrative inquirers in a participatory relationship” (Clandinin & Connelly, 2000, 172). A second benefit was realized as a result of the collaboration. It seemed as though I had two co-writers—my participants. They helped me over writer’s block. They provided pages and pages of material for me to consult and include in this work. They were there to receive and reflect upon ideas. During unproductive periods a simple question from them, “How’s the writing going?” helped me to return to the keyboard and spurred me on to the next page.

Puzzling

Engaging in this research and writing process enabled me to reflect, recollect and provide some new, different and deeper views of my stories. For instance, I came to understand how students’ and my children’s stories meant different things when viewed from different perspectives in time and different perspectives of place. Of course, bringing Monique and Roxanne into the research added to the puzzle. I wondered about their stories of Assessment for Learning. Were they resonant with mine? I wondered about the effect Assessment for Learning had on them and their communities as it became a part of their practices. I wondered about the tensions they experienced, their experiences in their classrooms and the effects on their students. My research puzzle now included Roxanne and Monique and the shifts they were making in their practices, their relationships with students, their classrooms, their tensions and their communities as the story of assessment in the whole school began to change.

CHAPTER 6. THE BEGINNING OF ASSESSMENT FOR LEARNING

> Since perception always takes place from a particular vantage point in the lived world—since our efforts to grasp reality must, therefore, always be incomplete projects—we feel ourselves summoned to take the kinds of initiatives that relate perspectives into a more or less coherent, even if unfinished whole. (Greene, 1995, p. 74)

After Assessment for Learning became a part of what I do in my classroom, I was invited to tell the stories. I told the stories to my students at the beginning of each new course, many of them hearing about Assessment for Learning for the first time. I told the stories at a conference. I told the stories for teachers in another school district as part of their PD day. I told the stories at the Summer Institute at the University of Alberta. I told the stories at several intra-district teacher and administrator gatherings. I told the stories for teachers at our school. As I looked over speaker notes, presentation materials, and the written comments I made during and after each presentation, it was obvious that the vantage points from which I was inviting each audience to share my stories were different. They differed because of who the listeners were, the passage of time, classroom experiences between presentations, and reactions and responses of the listeners. And, as they responded, it became obvious that the listeners in each audience had adopted a variety of vantage points. My problem became, how do I include all that is relevant in this story? Reactions and responses affected how Assessment for Learning became a part of my classroom and the happenings in my classroom. In turn, the happenings in my classroom affected the vantage point from which I was inviting each audience to share my story.

Greene's (1995) message at the beginning of this chapter helped me decide. I realized that implementation of Assessment for Learning will always be an incomplete project. There will always be more to add or change. There will always be words and perspectives that suggest a better practice. However, I felt "summoned to take initiatives that relate perspectives into a more or less coherent, even if unfinished whole" (p. 74). I ask the reader to "imagine imagining: it is becoming a friend of someone else's mind, with the wonderful power to return to that person a sense of wholeness. Often, imagination can bring severed parts together, can integrate into the right order, can create wholes" (p39). I ask the reader to imagine being a part of a learning community. The learning community is made up of all the participating audiences I have spoken of. We are gathered together in our imagination, in our learning community. We are going to travel from place to place and back and forth through time to each presentation, and to the happenings in the classroom which caused the presentations, some of which we are aware of through our knowledge of this work. I am not going to tell separate stories of each presentation; rather, I will bring the severed parts together—integrated, ordered, and formed into an unfinished whole just as though we are together in one large, diverse, and collaborative group. In the next two chapters I will tell the stories of how Assessment for Learning came to my classroom from the perspectives of the presenter and from the perspectives of my audience, or at least how I caught those perspectives as I presented, listened, and discussed. In this chapter I will tell of some of the ways we (teaching staff, administration, and students) prepared for the introduction of Assessment for Learning.

Assessment for Learning - Introduction

I am going to tell the story of our journey with assessment from the perspective of a high school science teacher, knowing that it will not be the same as your stories but with the hope that you might be able to use some of what is written to inform your practice. This story was, and is, part of a much larger narrative. Different and similar stories are added as we travel from school to school. Layers are added to the stories as we share perspectives from different vantage points: a teacher's, a department's, a school's, a district's, and a student's. Richness is added as we look back at the evolution of our stories and look forward to the potential for the future.

I begin in the midst of my own story, at a previous school where I was encouraging students to attend tutorials before school, at lunch time, and after school. My goal was to offer students opportunities to complete missed assignments and to replace poor test or quiz results. Doing so led to an understanding of where errors had been made and discovering what could be done to amend the errors. I kept track of incomplete assignments or assignments not handed in by entering a mark of zero and I pushed my students to complete the missed assignments[3].

I explained to students that a zero was a dual signal. It told them, first, that they had missed some work, and, second, that they had an opportunity to catch up on the work and replace the zero. I thought I was benefiting them. However, a call from a parent suggested I was going against district policies. I recall the conversation clearly. The parent worked for the school district in central office. She indicated that I couldn't give a zero—the school district's new policy was No Zeroes. The policy was the beginning of new district initiatives focused on assessment and achievement. The same day, I received a call from one of the district's student achievement consultants, who repeated what the parent had said. I talked to my principal about this surprising new initiative. The policy was in place in elementary schools and junior high schools but was not in place at high schools. I discovered that other teachers had received similar calls. As word quickly spread, our teaching staff became an unhappy collective. Several times a year, we had school spirit and team building days where we tried to bring our teaching staff together. Overall, we were fairly successful. However, the implementation of this No Zeroes policy brought us together like never before. It brought us together in resistance to the new policy and in developing strategies which led to a perception of cooperation and allowed us to continue as before.

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[3] A justifiable concern of many teachers was the amount of extra work involved. In answering, I agreed that initially it was more work but, as time went by, improvements were made by students which resulted in less work. Specifically, two things happened. The avoidance exhibited by students was reduced as we (they and I) collaboratively came to a greater understanding of the material studied. Although, at the time, I was not aware of the work of Carol Dweck, what I was doing was encouraging students to adopt the thinking of an Incremental Theorist. Secondly, I sent a clear message to students that failure was not an option.

At the end of that school year (three years ago), I was offered the position of department head of science at our district's other high school. I found that my new colleagues' experiences were very similar to mine.

It didn't seem to be a very favourable beginning for our district's new initiatives. But as I look back on the last three years (school year 2004-2005 to school year 2006-2007), our students' achievements tell a different story. I don't particularly care for numbers without words of explanation so I will try to use both numbers and explanations to convey some sense of the success of our students.

Three years ago (school year 2004-2005), our school's course completion rates were very low. Three years later we were close to 98%. Almost all of our students who enrolled in a particular course at the beginning of a semester were there at the end of the semester, having completed the course. Similar results could be achieved by refusing to allow students to drop courses. It is likely that this would be accompanied by high failure rates. I found that students' success rates were such that few if any failed to make the 50% requirement to pass a course. Students' successes provided self-motivation, motivation for our teachers, and encouragement to go on to the next level. More students took more courses. For instance, in science we needed an additional teacher for the 2006-2007 school year. The requirement for extra staff was a result of students' successes and of other measures taken, which I will highlight later.

In reporting only internal assessments, it may be suggested that standards were lowered. However, our diploma exam results in science show that our standards are on the rise. As I entered the school three years ago, our diploma exam marks in science were several percentage points below provincial average. More recently, over the past three exam periods, students showed a tendency to match provincial averages. The high point, in the 2006-2007 school year, was a seventy-three per cent class average (better than the provincial average) in physics and a 100% success rate in passing the diploma exam. In chemistry, for the last two school years (2005-2006 and 2006-2007), students reached the 70% mark and matched provincial averages, with one class actually coming in at 74%. In biology, students showed steady improvements in external measures.

Additionally, the numbers of students achieving diploma exam success increased significantly[4].

The stories told in our community began to feature our school as a viable alternative to other schools previously considered more attractive from both parents' and students' perspectives. Stories told by our students began to reveal a pride in their achievements and in the school.

Preparation for the Journey

How did we get to where we are? Much of what we did was and is linked to the district assessment initiative. We used assessment to drive our teaching[5].

I must stress that we did not rely simply on a change in assessment strategies. We found that those assessment strategies had to be integrated into the school culture along with other strategies that provided mutual support to our assessment initiative (a more detailed discussion appears in the following chapters).

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[4] It is interesting how, in our educational organizations and institutions, we are so focused on numbers and we are so aware of all the twists and turns that may be employed to make numbers say different things to different people. The first few times I spoke of our improvements, particularly in terms of completion rates, the audience insinuated, accused, hinted or asked questions which suggested that there was a lowering of standards. In future presentations, I decided to pre-empt the doubts by presenting information concerning students' successes on external assessments, diploma exams—numbers of students taking the exams and how they were catching up to provincial averages.

[5] I initially had great difficulty with the notion of "using assessment to drive our teaching." When telling our story of Assessment for Learning I attempt to present a softer version by suggesting we used assessment to inform our teaching and to inform our students' learning and to jointly improve our teaching and learning. I point out that we use a balance of Assessment for Learning and Assessment of Learning, we still need the snapshot and the feedback, and, as I became more comfortable with Assessment for Learning, I began to use our Assessments of Learning in a more formative way – not only using them "of learning" but also "for learning."

As a school staff, our first real exposure to Assessment for Learning came during the Teachers' Conference Presentation by Ruth Sutton[6] in 2005. Sutton highlighted three articles that she used in her work as she prepared to implement Assessment for Learning in classrooms:

1. *Inside the Black Box: Raising Standards Through Classroom Assessment* by Black and William (1998);
2. *Testing, Motivation and Learning* by the Assessment Reform Group (2002a); and
3. *Working Inside the Black Box: Assessment for Learning in the Classroom* by Black, Harrison, Lee, Marshall and William (2004).

The articles were interesting and useful as I prepared myself and my classroom for the introduction of Assessment for Learning. The three articles were introduced to school staff by administration. Our school staff found the way the articles were introduced encouraging and refreshing. Time was taken during several of our weekly staff meetings to read the articles, discuss them with colleagues in a small group format, and present resonance points to the larger staff group. We were encouraged to collaborate and present our thoughts to colleagues. Not only were we collaborating; we were collaborating on something we could use in our classrooms. My recollections of those weekly staff meetings, aided by scribbled notes in the margins of the articles, are presented below.

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[6] In presentations, I relate the story of the day with Ruth Sutton and how it led to my delving into the work of Carol Dweck. I am especially careful to avoid even a slight hint that my intent is for teachers to follow either Ruth Sutton or Carol Dweck blindly. I stress that the intentions of both was (and is) to provide a foundation to be adapted to many different situations in many different classrooms in many different schools by many different teachers and students.

1. Black and William (1998)

The report, *Inside the Black Box: Raising Standards Through Classroom Assessment* (Black & William, 1998) and the work upon which it was based resonated with every teacher who read it. The first task, in our small groups, was to summarize the article:

The black box referred to in the title is the classroom. Black and William suggested that attention is not being paid to what happens in the black box; consequently, although inputs may be controlled, outputs are uncertain. They maintained that most of the reform initiatives developed by schools and school authorities are "not aimed at giving direct support to the work of teachers in the classroom" (p. 2). Teachers are left to their own devices to make the inside of the black box work, even though this is the most difficult part of the puzzle, and its difficulty is deserving of more direct help and support from the "policy makers and others" (p. 2). The purpose of the report was to provide help to teachers working in the black box by focusing on one important element, formative assessment[7], which according to the authors "is at the heart of effective teaching" (p. 2). Black and William arrived at their viewpoint after conducting an extensive literature survey in order to answer three questions: "Is there evidence that improving formative assessment raises standards? Is there evidence that there is room for improvement? Is there evidence about how to improve formative assessment?" (p. 2). The literature survey returned an affirmative answer to each of the questions and indicated that innovations in classroom practice, such as using feedback from assessment to inform teaching and learning and actively involving students in teaching and learning, will produce improvements.

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[7] Formative assessment would likely be used interchangeably with Assessment for Learning by Black and William. However some writers have emphasized a subtle difference. For instance, Ruth Sutton explained her understanding of the difference between Assessment for Learning and formative assessment: Formative assessment is a crucial part of Assessment for Learning but need not include students in the assessment process; Assessment for Learning is mostly a collaborative process involving students and teachers. As far as I am concerned both Assessment for Learning and formative assessment involve a collaborative effort in which both students and teachers must be actively engaged in order for the whole process to be successful.

The authors used selected quotations to indicate some of the problems and shortcomings of the everyday practice of assessment:

- Current assessment practice "fails to offer guidance on how work can be improved … reinforces underachievement and under-expectation by being too generous or unfocused" (OFSTED, 1996, p. 40);
- Dassa, Vazquez-Abad and Ajar (1993) suggested that we (teachers) pay lip service to encouragements or mandates to practice formative assessment because we consider the practice "unrealistic in the present educational context" (p. 116); and
- Neill (1997) indicated a disconnect between the assessment practices promoted in the professional literature and those used in the classroom.

Is there room for improvement? In answering that question, Black and William (1998) summarized their findings by suggesting that difficulties with assessment revolve around three issues:

1. Effective learning: The tests that many teachers use encourage superficial learning and there is some incompatibility between what is actually being assessed and the supposed focus of the assessment.
2. Negative impact: Often, assessment practices generate negative impacts particularly with low-achieving students who are given the impression that they lack ability and are unable to learn, an echo of the findings from Dweck's (2000) work.
3. Managerial role of assessments: Feedback to students serves "social and managerial functions, often at the expense of learning" (Black & William, 1998, p. 5); teachers are able to collect marks for records and predict how students perform on external tests, they are not sufficiently aware of students' learning needs.

Before we began discussing the report, several colleagues in my small group commented on the seemingly new direction our administration was taking. We were using staff meeting time to help with PD. Using the words of the article, it seemed our work inside the black box was being directly supported by administration. Collaboration was being encouraged to support teachers' work inside the black box. Comments on the report in general, and about the three issues identified above were, initially, not as positive: "We don't do that, that's not us, that's not fair, that's not realistic" (Personal communication, October, 2004). A few teachers even made derogatory comments about academics and their research in our classrooms. However, one member of our small group pointed out that Black and William (1998) defended teachers. They opened the report by telling us that "the most difficult piece of the standards-raising puzzle" was being left "entirely to teachers" (p. 2) with little or no help from the policy makers or others. I believe the most relevant comment was made by one of our science teachers, who said:

> We are looking at formative assessment and Assessment for Learning which is good and I think it will be helpful in the long-run. But our school system is largely, but not totally, geared towards getting our kids through diploma exams and other external measures of their achievement so they can go on to the next level. It seems as though there is some conflict or at least some things that are not connecting there. (Personal communication, October, 2004)

The authors agree with my colleague; elements of her comments can be found in each of the three issues—effective learning, negative impact and managerial role—around which Black and William suggested difficulties revolve. She had highlighted the part of the report that claimed that most resources were devoted to national external tests (a managerial role) and "as researchers the world over have found, high-stakes external tests always dominate teaching and assessment … they give teachers poor models for formative assessment because of their limited function of providing overall summaries of achievement rather than helpful diagnosis" (Black & William, 1998, p. 5). Her comments took me back to Dweck's (2000) contention that high-stakes testing and teachers' responses to the demands of high-stakes testing are likely to push students toward an Entity Theorist's approach rather than an Incremental Theorist's approach.

Perrenoud (1991) acknowledged the disconnect, highlighted by my colleague, and suggested that formative assessment meant more than bringing a new practice to the classroom: "Every teacher who wants to practice formative assessment must reconstruct the teaching contracts so as to counteract the habits acquired by his pupils" (p. 92). Perrenoud was saying that if I focused my attention and students' attention on performance goals—passing diploma exams, for instance—and sacrificed learning goals, students would be likely to ignore learning goals. Or, at least, push them to the background. Perrenoud suggested renegotiating teaching contracts so that the focus is on learning goals rather than performance goals.

Another colleague shared his views (mainly using the words of the article) on the ways that reforms and initiatives typically arrive in classrooms: "Policies are inputted, little direct support is given to the work of teachers in the classroom and teachers are left to their own devices to make the inside of the black box work" (Personal communication, October, 2004). He added that it reminded him of the recommendations from a UK government task force (Task Group on Assessment and Testing, 1988) which emphasized how important formative assessment was. The problem was that the department whose responsibility it was to carry out government policy did not have a strategy to help teachers implement formative assessment, nor did they devote resources of any significance to the work (Daugherty, 1995).

As the discussion moved to the larger group, the first of the small groups to report was impressed by the authors' admission that formative assessment is not a magic potion. The group's members considered the admission to be a warning: Just because we incorporate Assessment for Learning, results will not magically appear. As a staff, we all need to be involved and we all need to have some consistency.

Black and William (1998) suggested that, to be effective, formative assessment must be included as part of "a culture of success" (p. 6) with feedback focused on students' work (how they can improve) and comments about their abilities should be avoided, as should comparisons with other students. The group felt that "culture of success" meant a consistent and all-around effort from staff, including support from administration. Without consistent effort and support, there would be no success.

The next group voiced a concern. Their spokesperson believed Assessment for Learning would help her and her students, but her concern (and frustration) was, "Where and how do I start?" (Personal communication, October, 2004). The facilitator (our principal) turned the question back to us to discuss in our small groups. My group thought the authors were suggesting peer assessment and self-assessment as the starting point. They described peer assessment and self-assessment as two of the mainstays of formative assessment. They used work by Sadler (1989) and suggested that we need to assist our students by helping them discover where they are in the learning process, where they need to be, and what they need to do to get there. This is the essence of peer assessment and self-assessment according to Black and William (1998), who emphasized that none of this would work without effective teacher-student communication and, to support effective communication, opportunities for students to "communicate their evolving understanding" (p. 7). There was general agreement in our small group and comments suggested that many of our students would be willing to communicate and share their understanding. It was felt that other students would be more reluctant to communicate and, for those students, we need to create a risk-free environment in our classrooms. That is, an environment in which students can actually check their understanding and are not always concerned about the one right answer or the expected answer. The goal, of course, is to encourage students to adopt an Incremental Theorist's approach focused primarily on learning goals and secondarily on performance goals when they do not detract from learning.

As we returned to the large group format, two small groups made short presentations. The first group suggested that the authors' keys to implementation were being patient and being aware that there may be resistance to formative assessment. They thought that some students would resist moving away from what they were used to and resist moving toward a more challenging environment in which there would be greater expectations to think for themselves and more of a push to work harder. After all, why should they work harder without immediately experiencing the benefits of that work? The group quoted from Black and William's (1998) article as the spokesperson encouraged patience: "Each teacher must find his or her own ways of incorporating the lessons and ideas … into his or her own patterns of classroom work and into the cultural norms and expectations of a particular school community" (p 19-20)[8].

The second group to speak offered the four step plan (Black & William, 1998) for implementation:

Step 1. "Teachers need to see examples of what doing better means in practice" (p. 10). Presenting general principles to teachers and expecting them to put them into everyday practice will not work. Teachers' lives are too busy. Black and William (1998) suggested that a small group of teachers be given the time, resources and support to implement formative assessment.

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[8] I remember the small group quoted directly from the article because "it's exactly what we want to say-it's a warning, advice and a valuable piece of professional development."

Step 2. Teachers will require time, resources and support to disseminate their findings to other teachers in their school or school district. A warning was offered that the process of dissemination is likely to be slow. Each group of teachers requires time, resources and support to ensure the implementation is compatible with their patterns of classroom work.

Step 3. The small group paraphrased the article; they foresaw obstacles to implementation of Assessment for Learning as a result of the conflicts between internal and external summative assessments and the incoming formative assessments. They highlighted potential problems by initially using a study reported by Johnston, Guice, Baker, Malone, and Michelson (1995):

> Most of the teachers in this study were caught in conflicts among belief systems and institutional structures, agendas, and values. The point of friction among these conflicts was assessment, which was associated with very powerful feelings of being overwhelmed, and of insecurity, guilt, frustration, and anger … This study suggests that assessment, as it occurs in schools, is far from a merely technical problem. Rather it is deeply social and personal. (p. 359)

The quote was helpful but the concern was brought home to us by a colleague who suggested:

> Many of our kids are involved in diploma exam courses. We all know how much the exams mean to them and, I guess, our school. We know that we can get our kids through the diploma exams with pretty decent marks. I agree with that quote, it is personal. We feel good when our kids do well. We feel frustrated, angry, guilty when they don't do as well. Guilty? Yes, because I know I could have got them to do that little bit better. Now we are going to step out on a limb and change things around. I know that we are supposed to be improving things but I am wondering. (Personal communication, October, 2004)

The same teacher added that he would attend to (he quoted): "The interactions between these external tests and formative assessments to see how the models of assessment that external tests can provide could be made more helpful" (Black & William, 1998, p. 11). In other words, he would make sure that his students were prepared for the external tests because he would use the external summative tests in a formative way to ready his students for their external and internal exams.

Step 4. The small group ended their presentation and our session abruptly and appropriately. They left us all thinking. They suggested:

> We think that Black and William are saying the most important questions may only be answered by introducing and developing formative assessment in our classrooms. Because each teacher will find his or her own ways to incorporate formative assessment in his or her own classroom. (Personal communication, October, 2004)

2. Assessment Reform Group (2002a)

The Assessment Reform Group (ARG) began work in 1990. The group was part of the British Educational Research Organization. Its mandate was to investigate "policy issues in relation to assessment and to bring research evidence to the attention of policy makers and practitioners" (ARG, 2002a, p. i). The objective of *Testing, Motivation and Learning* (ARG, 2002a) was to look at the impacts that assessment has on learning. The authors presented findings by addressing five questions regarding the impact of assessment:

> What is the overall impact on students' motivation?
> How does the impact vary with the characteristics of students?
> How does the impact vary with the conditions of testing?
> Where impact on pupils has been found, what is the evidence of impact on teachers and teaching?
> What actions in what circumstances are likely to increase the positive and decrease the negative impact on student motivation?

The ARG sought to achieve its goals by searching and studying published research articles. As I read through the group's resulting study, many of Dweck's (2000) findings came to mind directly from the written material and via the connections I made. Again, our staff read and discussed the article in a small group format. We were asked to discuss each of the questions and the authors' findings. Although we didn't have time to present our thoughts and discussions, we were able to note what we thought were the relevant points on flip charts which we collected and posted in our staff room. I was able to summarize the discussion of my small group and, by checking the flip charts, I found that our words were not significantly different from those of the other groups.

What is the overall impact on students' motivation?

The impact of assessments on low achievers, although not surprising, was particularly disturbing to our group. Several authors cite examples of reports that describe low achievers being weighed down and de-motivated by repeated failure or under-achievement and of a widening gap between low and high achieving students (Gordon & Reese, 1997; Paris, Lawton, Turner & Roth 1991; Pollard, Triggs, Broadfoot, McNess, & Osborn, 2000). I think we had all seen this happen in our school system as students were streamed often without the opportunity to recover from the streaming.

One teacher took exception to the claim that "only those confident of success enjoy the tests" (ARG, 2002a, p 4). She suggested that those students with performance goals would enjoy the tests if they were easy. The students with learning goals would enjoy the tests if they were challenging and they felt that they learned from the experience.

How does the impact vary with the characteristics of students?

Paris et al. (1991) suggested, "Instead of motivation increasing with age, older pupils felt resentment, anxiety, cynicism and mistrust of standardized tests" (p. 15). We collectively wondered how much impact we, as teachers, have on the de-motivation of students. At the end of each unit, course, and year, students are given unit exams and

> final exams. Does this cause students to feel resentful, anxious, cynical, and mistrusting because of our focus on performance instead of learning? And we also asked, "What is the alternative? How long does it take to implement? And what happens to our students caught in the transition?" (Personal communication, November, 2004)

How does the impact vary with the conditions of testing?

The authors (ARG, 2002a) suggested that conditions of testing are not as important as the way in which the results of testing are reported back to students. Feedback focusing on the potential for improvement and how to improve tend to result in longer term benefits to students. Feedback emphasizing performance goals, unsurprisingly, leads students to adopt performance goals. One teacher in our small group voiced the group's concern: "Learning goals are what we need to aim for. But external testing and much of our internal testing forces us to focus on performance goals. There is obvious conflict. This will take a long time to turn around" (Personal communication, November, 2004). Another teacher added:

> Are parents pushing our kids towards performance goals with insistence that their children produce good results? Are we pushing our kids, our teachers and our schools towards performance goals? After all we seem to judge schools on performances from summative tests and external tests. And, I must add, is it wrong to want good performances? (Personal communication, November, 2004)

Where impact on pupils has been found, what is the evidence of impact on teachers and teaching?

The article (ARG, 2002a) suggested that we (teachers) can be very successful in teaching-to-the-test. We can train students to be successful on high-stakes tests. However, at the same time, we are creating Entity Theorists or at least pushing our students toward an Entity Theorist's approach to learning—valuing performance rather than learning. I think most of our staff agreed with the findings. There was a general feeling that our goal is to get kids to post-secondary, and if that means teaching to the test and letting kids in on the test-taking secrets, then so be it.

What actions in what circumstances are likely to increase the positive and decrease the negative impact on student motivation?

Perry (1998) suggested that it is most important to encourage and allow students to participate in their own education. The report (ARG, 2002a) further suggested that students should be shown how to assess their own work and that of their peers. As a follow up, students should be encouraged and shown how to develop strategies to improve their work and to coach others to do the same. Unfortunately, we were at a preliminary stage on the journey and, as we found in our discussions about the previous article and as one colleague pointed out, "the most important questions may only be answered by introducing and developing formative assessment in our classrooms" (Personal communication, November, 2004).

In general, our teaching staff agreed with what the authors had to say. However, there was one point that caused some debate. The authors wrote:

> The research shows that the negative impact of tests can be reduced by ceasing to focus on test content. It can also be reduced by ending the practice of training students how to pass tests and by preventing the use of class time for repeated practice tests (ARG, 2002a, p. 7).

The general feelings, thoughts and words from our staff were captured by one of our science teachers:

> Unless policy-makers eliminate high stakes tests, we are doing our students a great disservice by ignoring the tests and not attending to our students' needs and desires to discover how best to cope with the tests. One way to increase our students' anxieties is to ignore the tests, ignore preparation for them and allow them to go into the tests completely unprepared. (Personal communication, November, 2004)

Much later, in the Assessment for Learning journey, I frequently saw and heard how staff used test preparations formatively. For instance, they explained the purpose of the tests, gave students a sense of the knowledge and skills they needed; involved students in decisions about tests, negotiated the timing of tests on an ongoing basis, and involved students in writing test items (after initially showing them what constituted acceptable test items). Also, I frequently saw and heard how staff used both summative and formative assessments in a formative way. For instance, they spent time discussing students' growth, used summative assessments in a formative way to show progress made and for plotting a course for the future, involved students in group work, practiced test-taking collaboratively, marked in a group format, and encouraged student-to-student feedback.

3. Black, Harrison, Lee, Marshall and William (2004)

In *Working Inside the Black Box: Assessment for Learning in the Classroom* (Black, Harrison, Lee, Marshall & William, 2004) the authors addressed the practical aspects of raising standards inside the black box. They reported on a collaborative project involving the Department of Education (UK), King's College, London, and six schools from two school districts in southern England. The goal of the project was to develop classroom practices based on the ideas of the article *Inside the Black Box: Raising Standards Through Classroom Assessment* (Black & William, 1998). The findings of the work were gathered under four headings: Questioning, Feedback Through Grading, Peer and Self-Assessment, and Using Summative Tests Formatively.

This was the last of the three articles that we worked on in our staff meetings. We read and began discussing the article during one of our ILT[9] meetings. Each member of the ILT then led a small group discussion at the next general staff meeting. Points of resonance from the small group discussions were presented to the larger group. At the time, many of us were well into implementing Assessment for Learning.

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[9] ILT = Instructional Leadership Team. The ILT included administration and department heads. Its purpose was to support the instructional development of the teaching staff.

Questioning

The authors suggested two aspects of our practice, concerning questioning, that required our attention. The first had to do with wait time and the second with how we direct our questions and at whom (which students).

They found that after asking questions, a teacher's wait time was generally less than one second—teachers either answered the questions themselves or asked another question. What effect did this have on students? The only questions students could answer were those which required little thought—"that is, questions calling for memorized facts" (Black et al., p. 11). Or the teachers tended to direct questions at only the brightest of students. One of the participants in that study reflected on his classroom techniques and commented, "There must have been times (still are?) when an outside observer would see my lessons as a small discussion group surrounded by many sleepy onlookers" (p. 11). After the teachers involved in the study made an effort to increase wait time, they described the experience as painful, uncomfortable, and unnatural. However, as the pain and discomfort subsided and the teacher participants and their students grew more familiar with extended wait times, teachers expanded the scope of the question and answer periods. They described their lessons as "more interactive" (p. 12). They found students became "comfortable with giving a wrong answer" (p. 12), particularly when the answers were used as a springboard for further class discussion. More students were involved in discussions as teachers encouraged students to engage in small group brainstorming prior to answering.

Feedback Through Grading

Butler (1988) suggested that teachers can have a positive effect on student learning by offering feedback in the form of a commentary, but when a grade is added, students usually ignore the written comments. This is one aspect of Assessment for Learning that I found particularly difficult. In conversations with colleagues, I found I was not alone, and our reasons for the difficulties were remarkably similar. Firstly, I was of the opinion that I was professionally obliged to provide marks as records of my students' achievements. Secondly, throughout elementary, junior high, senior high, and many university courses I was given a grade, usually without detailed comments, and I really believed I knew what those grades meant. Although the grade may have spurred my attempts to improve, it never guided my attempts to improve. Similarly, a grade on an assignment does not tell my students how to improve, does not tell me how I can help them improve, or tell us (teacher and students) how we can collectively improve. Thirdly, as a parent as well as a teacher, I always expected grades on my children's work. In providing comments only, am I falling short of parents' expectations? It seems I am not: "The provision of comments to students helps parents to focus on the learning issues rather than trying to interpret a score or a grade" (Black et al., 2004, p. 13). Finally, I was concerned that my students were reading but not responding to my comments. However, when I gave a grade and a comment, they either ignored the comments and went directly to the mark or merely skimmed over the comments. I found that my students did (and do) take notice when I gave comments only. Initially, I thought they read the comments simply because they were shocked at not receiving a grade, but I believe they were genuinely interested in the comments and the potential to improve.

I found that the approaches taken to feedback and grading by the teacher participants in the study were very similar to the approaches that my colleagues developed and used. Some of my colleagues used comments and no grades, others assigned grades but only comments were given to students, and yet others gave grades only after students responded to comments. Certain of my colleagues spent far more time responding to particular pieces of work. In order to accommodate the extra time involved, they only marked specific parts of assignments or engaged students in self- or peer assessment. The goal was to “identify what has been done well … what still needs improvement and [to] give guidance on how to make that improvement” (Black et al., 2004, p. 14).

Peer Assessment and Self-assessment

For me, the development of the skills necessary for students to effectively assess their own work and that of their peers is the most important part of Assessment for Learning. These are the skills which lead to self-discovery of any deficiencies in work and development of strategies for improvement. They lead to a greater understanding of the learning process and how each individual fits into that process. They are essential to functioning within an Incremental Theory framework, are vital in learning how to learn, and are the skills that our students take to post-secondary institutions and to the workplace. I will go into more detail later about how we helped our students develop these skills in our classrooms.

The Formative Use of Summative Tests

My colleagues had already successfully implemented some Assessment for Learning strategies. The strategies were focused on preparation for summative tests and what to do after summative tests. The first strategy, Traffic Lights was one my colleagues used with students to identify subject areas of comfort (green light or green marker), subject areas of discomfort (yellow light or yellow marker), and subject areas where a great deal of help was required (red light or red marker). Students then used Traffic Lights as the basis for review, working, either alone or with a group of peers, on problems from the red areas. One of my colleagues who used this strategy said that he had to monitor his students very closely, as he found several students practicing avoidance by giving troublesome areas a green light.

The second strategy, which became one of the most popular among colleagues and students, is to have the students generate their own exam questions and answer keys. My colleagues' opinions agreed with many of the points in the article:

> Pupils have had to think about what makes a good question for a test and in doing so need to have a clear understanding of the subject material. As a development of this, the best questions have been used for class tests. In this way, the pupils can see that their work is valued, and I can make an assessment of the progress made in these areas. When going over the test, good use can be made of group work and discussions between students concentrating on specific areas of concern. (Black et al., 2004, p. 15)

Many colleagues commented on the articles, saying how useful they were as we began to introduce Assessment for Learning into our classrooms. The collaboration with colleagues and the support for our work inside the black box added to the value of our staff meetings. Our staff meetings were transformed. They changed from gatherings that were occasionally interesting and mostly concerned with information transfer from administration to staff to collaborative and valuable PD opportunities that supported our work in the classroom via the collegial and administrative support.

Puzzling

Before commenting on how the three articles simultaneously helped me to respond to the puzzle and added to it, I must comment on the wonder created by the different approaches to PD. The purpose of staff meetings had always been to disseminate information and occasionally to promote some PD initiative, usually without input from teaching staff. The new focus in staff meetings was PD, in which teachers were encouraged to collaborate and share perspectives on PD. These were significant changes. I wondered if the changes would be sustained.

The three articles helped me to understand the differences between summative assessment and formative assessment and what those differences meant to my practice. However, the understanding led me to wonder about my practices. Did I offer guidance on how work can be improved? Was there compatibility between what I actually assessed and the supposed focus of the assessment? Did my assessment practices generate negative impacts particularly with low-achieving students? Were low-achieving students given the impression that they lacked ability and were unable to learn—an echo of the findings from Dweck's (2000) work? Did my feedback serve "social and managerial functions, often at the expense of learning" (Black & William, 1998, p. 5)? That is, was I assessing in order to collect marks and to predict how students performed on external tests and neglecting students' learning needs?

One of my colleagues suggested that Assessment for Learning was in conflict with teachers' focus on diploma exams. Dweck (2000) seemed to agree that high-stakes testing and teachers' responses to the demands of high-stakes testing would push students toward an Entity Theorist's approach rather than the Incremental Theorist's approach. How could the conflict be resolved?

Black and William (1998) suggested using a whole school approach to resolve many of the difficulties associated with the introduction of Assessment for Learning. The manner in which our administration was encouraging collaboration did promote a whole school approach, but was it sustainable?

Another colleague asked, "Where and how do I start?" (Personal communication, October, 2004). The question did not concern me as a teacher, as I felt I would introduce Assessment for Learning in an appropriate way. But it did concern me as a department head because it was my responsibility to encourage and help teachers begin their Assessment for Learning journey. She went on to echo a fear I had expressed earlier. She suggested that some students did not do well as they experienced change and that "now we are going to step out on a limb and change things around. I know that we are supposed to be improving things but I am wondering" (Personal communication, October, 2004). I shared her wondering.

One of our physical education teachers gave an amusing response to the Black and William (1998) contention that the most important questions may only be answered by introducing and developing formative assessment in our classrooms. The teacher suggested, “This is kinda like leaping into the deep end of the swimming pool and thinking, I am not sure, but I think I get this swimming thing” (Personal communication, October, 2004). For some, leaping in to the deep end requires faith and courage. Similarly, for some, leaping into Assessment for Learning requires faith and courage. I knew I would have to promote the introduction of Assessment for Learning and encourage reluctant teachers to begin. I wondered how I would do that given what I now understand about the uniqueness of each teacher’s personal practical knowledge and how each teachers knowledge shaped their curriculum making.

CHAPTER 7 – ASSESSMENT FOR LEARNING IN MY CLASSROOM

Putting it into Practice[10]

How do I introduce Assessment for Learning to each new group of students? I begin the introduction as I begin every new class on the first day of each new semester. I talk, in fairly formal terms, about what I have learned with respect to Assessment for Learning and how and why, over the last few years, I introduced some different teaching and learning experiences into my classroom. I tell my students about their impending progress and about how the progress will happen. I tell them that they will look in the mirror 5 months into the future and they will see a person much different from the one they see now. That person will have made tremendous progress, learned a new language, learned some science that was not discovered all that long ago, and learned to cope with unit exams and final exams. I tell them about the progress previous students have made. It is my first attempt, with each new group, at intentionally pushing students towards an Incremental Theory approach. Or, for those already within the Incremental Theory framework, it is my first attempt at keeping them there. As a result of the changes and the progress they will make, I ask them if they will be as capable in 1 month's time as they will be in 5 months' time. With some curiosity, they answer that they will be more capable after 5 months. I reply that we wouldn't be doing our jobs very well if they didn't progress. Then I ask them about unit exams. Typically, students take an exam at the end of each unit; each course has four or five units. I ask them if I should count the first unit exam or give them an opportunity to replace it; should they have a second chance? The answer is obvious.

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[10] When presenting this material, I found it helpful (to me and the audience) to provide three reminders (of why we were involved with Assessment for Learning):

1. Three key functions of formative assessment: (a) informing teachers about student learning during instruction for the purpose of guiding and modifying instruction; (b) providing corrective feedback to students about learning progress for the purpose of guiding and improving learning; and (c) enhancing student motivation (Wininger & Norman, 2005, p. 24).
2. I spend some time talking about the work of Carol Dweck (2000) and the ways in which we can influence our students and in which we can motivate or de-motivate.
3. Stiggins (2001) suggests that "teachers can enhance or destroy students' desires to learn more quickly and more permanently through their use of assessment than through any tools at their disposal" (p. 36).

The questions and my acceptance of their answers inform students of my expectations and shows them that I believe they are going to make progress. I find that replacement exams take away some of the test anxiety felt by students by allowing them to focus more on learning and less on performance. I take the opportunity to explain to students that although they are summative assessments, we will use them formatively. We will look at our errors (if we make any) and what we need to do to improve.

I explain some of the ways we will use summative assessments in a formative way such as going through exams as a class or in small groups. I often ask small groups to present an answer or even to comment on other groups' answers. As well as introducing them to Assessment for Learning I provide an introduction to the safety net of second chances and to the notions of peer coaching, peer teaching, and the learning that will take place as a result of the strategies.

When I first introduced Assessment for Learning into my practice, I was concerned about the extra time involved, for instance, in giving replacement exams, analyzing the exams, and helping my students discover what errors might have been made. I wondered if there would be sufficient time to cover all the material. The content of diploma courses and non-diploma courses is great. However, with the non-diploma courses, teachers can be selective in their coverage of material, particularly when it is not a precursor for what is taught in diploma classes. When it comes to diploma classes, it is not advisable to leave out material nor is it advisable to gloss over material[11]. But coverage wasn't my greatest concern. In the back of my mind, I had a fear that I was artificially inflating my students' marks. Would my students be over-confident going to the next level? Would they be adequately prepared for the next level? Would they be prepared for their diploma exams? Would their teacher-awarded marks be compatible with their diploma exam marks?[12]

After I worked Assessment for Learning strategies into non-diploma classes and found that we were making really good progress, I did try with diploma classes. What I found was coverage of the material was not a problem. I was actually saving time—using peer assessment, peer coaching, and self-assessment, I found students had a deeper and greater understanding of the concepts. As far as diploma marks were concerned, my teacher-awarded mark did increase, and so did students' diploma marks.

I found that introductory discussions about replacement exams were an effective way to introduce collaboration to students, to let them know that they have a voice, that I want to hear it, and that I am serious about involving them in their learning. Student involvement is one of the essentials of Assessment for Learning. Often, students are not involved, with time considerations and staying with the curriculum offered as excuses. I have found that offering second chances on something as important as unit exams sends the dual message that I am serious about collaboration and I am serious when I say that students are going to grow during the 5-month duration of each course.

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[11] The make up of the diploma exam dictates that we must pay strict attention to content. The exam is made up of approximately forty multiple choice questions, eleven or twelve numeric response questions and two written response questions. The written response questions account for thirty percent of the mark and are often narrow in their coverage of curriculum. In other words, if we are unlucky, we could decide to leave out five to ten percent of the curriculum and lose thirty percent of the mark.

[12] The mark from the diploma exam is blended with a teacher-awarded mark to give the student's final mark. There is an expectation that the teacher awarded mark will be similar to the mark students achieve on the diploma exam. The expectation may be an unwritten expectation but it is an expectation nonetheless. By artificially inflating the mark, my classes' teacher-awarded mark and my classes' diploma exam results would be out of line or, at least, that is what I thought.

No Hands and Talking Partners

Student involvement is one of the essentials of Assessment for Learning. Student involvement during lessons is critical. One of the easiest and most effective ways of involving students is through questioning. It can also be one of the most difficult and ineffective. One of the teachers involved in the project reported in *Working Inside the Black Box: Assessment for Learning in the Classroom* (Black et al., 2004) commented on the question-and-answer sessions in his classroom:

> I'd become dissatisfied with the closed Q & A style that my unthinking teaching had fallen into, and I would frequently be lazy in my acceptance of right answers and sometimes even tacit complicity with a class to make sure none of us had to work too hard… They and I knew that if the Q & A wasn't going smoothly, I'd change the question, answer it myself, or only seek answers from the "brighter students." There must have been times (still are?) where an outside observer would see my lessons as a small discussion group surrounded by many sleepy onlookers. (p. 11)

One of my colleagues suggested two questioning techniques which I have found increasingly useful. They are No Hands and Talking Partners (Clarke, 2005). Occasionally, I find it necessary to use Talking Partners before No Hands. With Talking

Partners, I ask a question and my students are encouraged to discuss an answer for a short time, about 30 seconds to a minute. I then choose a group to answer. Those students who are more reluctant to answer are often encouraged by hearing their answer or their contributions to an answer. They may be further encouraged by the response, particularly to an incorrect answer. The goal, of course, is to create a risk-free environment in which the learning from an incorrect answer is just as valued and valuable as the learning from a correct answer. With some classes it was necessary to model what a good talking partner conversation sounded like. This part was really easy; I circulated within the class and listened and told the class what I had heard and what I had seen. Alternatively, I would ask groups to share their conversations. Talking Partners often motivates reluctant students to participate in No Hands.

With No Hands, the question is asked and no one is allowed to raise a hand; the teacher chooses the respondent. I had not thought the No Hands process through until I read:

> Even if an open question is asked, hands shooting up while a student is in the process of thinking something through stops that process dead in its tracks. Many students have had this classroom experience so many times in their lives that, when a question is asked, they don't even begin the thinking process. When this happens, students gradually lose motivation and avoid investing effort in the subject, eventually opting out altogether. (Clarke, 2005, p. 50)

I found that I had to be persistent with both strategies to realize consistent returns. I often had to remind myself that Talking Partners must precede No Hands in order to create a safe environment in which the more reluctant students discover the degree of comfort that would allow them to answer.

Assignments and Marking

I continue Assessment for Learning using a variety of strategies. I deal with assignments by using Ruth Sutton's Ten Steps as a check list:

1. Teacher is clear about purpose and task.
2. Teacher knows how to State, Share and Show learning expectations.
3. Teacher designs and explains enabling tasks.
4. Teacher AND students develop criteria.
5. Students check their work, while the task is in progress.
6. Students say what's OK and what's not.
7. Students identify a next step.
8. Students continue or correct work so far.
9. Students reflect periodically on what they've learned and how they've learned it.
10. Students present learning and achievement to an audience. (Sutton, 2005)

I begin with the first three items, explaining what we are doing, what we will learn, and how we will learn it. However, due to my familiarity with the courses I teach, I found that I sometimes neglected to do this, which initially, didn't disturb me; after all I knew where I was going and how I was going to get there. I clearly forgot my fellow travelers: my students. I now clearly state, usually in writing on the whiteboard, where we are going and the vehicle we are using. I leave the statement on the board. At the end of the lesson, I ask, "Are we there yet?" Often we are, but when we are not, we return to it the following day.

As I introduced Assessment for Learning , I found the fourth item, teacher and students develop criteria, to be the most difficult. First of all, students were not used to being involved in decision-making surrounding assessment and in the more formal parts of their lessons. Yes, I did listen to their stories and I did try to bring them and their stories into my lessons, but they were not as involved in their learning as I wanted them to be and not as involved as they should have been. As well, I think there was a fear, on my part, of the consequences of relinquishing control. For instance, what would happen if I involved my students in developing scoring rubrics for assignments; what would happen if I allowed my students to mark their own work; what would happen if I allowed students to mark each others' work; how would they learn if I gave up class time for peer coaching and peer teaching; would my whole assessment system collapse if I involved students in putting together exam questions?

I started by using a task that I thought would be easy to control, writing a lab report. My Grade 11 students started writing lab reports, using a teacher's prescription, in Grade 7 or earlier. I expected a write-up procedure very similar to what had been used since Grade 7. However, they surprised me. One of my goals in science was (and is) to relate lab practices and discoveries in labs to the scientific theories learned during class time. The importance of this was not lost. After we had completed a particular lab, I asked my students how we should do the lab report. Their initial surprise was quickly replaced by mostly constructive suggestions. They suggested that instead of mindlessly (their word) writing a procedure, which was no more than copying from a book or lab manual, they should connect theory and practice. They suggested that the first part of the lab write-up should be an explanation of the theory behind the lab and how it connected to the lab. This was what I wanted them to do and it was what they should be doing. My students indicated that this part of the write-up warranted heavy weighting, as far as marks were concerned. They suggested that data and analysis should be presented in the next section—this was fairly standard. My biggest surprise came as they described what they wanted in the next section.

Whenever possible, I had shown them how to back calculate from an expected answer to a predicted data point. For example, I use a simple pendulum to explore the inter-relationship between the variables "length of pendulum" and "period of oscillation" and to measure the constant which is acceleration due to gravity. I know acceleration due to gravity should work out to be very close to 9.81 m/s^2. If I set the length of pendulum, I can calculate what the period of oscillation should be. I can then measure the period of oscillation experimentally and compare the predicted value and the measured value. I then respond accordingly, repeating the trial or accepting the measurement. The students suggested I was showing them how to cheat, and from a certain point of view they were correct.

What the students wanted to do in this section of the write-up was to include the back-calculation. It showed the connection between theory and practice, and it allowed them to explain the lab and the connection between theory and practice (I have always stressed that one of the main goals of their writing is to be able to explain something better after they have finished writing than they could before they wrote). For the final part of the lab report, they told me they liked my three-part conclusion: What we did (a brief description of the lab); what we found (a brief description of findings); and errors and improvements (what errors were made, how the lab may be improved). However, they did decide to title the section "Executive Summary" rather than "Conclusion." As I have mentioned before, we engage in a mental break at some point during our class. During one conversation, my students asked about the work I did before I began teaching. In that work, at the end of each project I usually submitted and presented a project report to the company's executive. As I described the report to my students I likened the project report to a lab report and suggested that the executive summary was very similar to the conclusion in a lab report. It had a section on what I did, what I found, and any errors, improvements, or issues we had to look out for in the future. I also suggested that the executive summary had to be well written because that is all our executives would read. After the conversation, the title of our lab conclusions became "Executive Summary."

The lab report was how students began to immerse themselves in Assessment for Learning. It is how they began to accept the involvement which Assessment for Learning demanded.

The fifth of Ruth Sutton's 10 steps involved checking on progress followed by reflection and correction. When it came to doing the lab write-up, I allocated some class time to do this. I wanted to see how the lab groups handled the new way of reporting and how they checked, reflected and corrected. I walked around the class and listened in on a few conversations. The conversations were animated; there was a lot of teaching and coaching happening. There was a strong sense of ownership, and the lab report seemed to be less of a chore. After the lab reports were handed in, I looked through them, made suggestions as to how they might be improved (most needed only minor changes), and returned them without adding marks. The students thought that was strange. Some of them searched frantically for the mark. I asked the students to go through the reports outside of class and to hand them in the following Monday with or without the suggested changes.

These latter stages, I think, are most important. Students were given the opportunity to reflect on what they had done so far, where they needed to go and how they would get there. They were presented with a fairly risk-free environment that provided opportunities to check work and ask for advice, and also to teach, coach, and learn. As this process evolved, it helped students to realize or confirm what was required to perform at a higher level. Obviously, some students found this task much easier than others, and some needed more coaching than others. The first time I tried this I received 10 out of 10 comprehensive and well-written lab reports. And only very rarely since then have students disappointed me.

The last of Sutton's 10 steps, presenting learning and achievement to an audience, is one that I didn't really pay much attention to. I often told students that one of the best ways to learn is to teach. I believe that this was what Sutton intended and I missed it for quite some time. At the reflection stage, students presented what they had learned about the lab and its connection to theory. Their audience was other group members. They presented, taught and coached. The next instance of presenting their learning and achievement to an audience was in presenting the results of the assignment for assessment. This was, in a way, summative assessment but I did use it formatively to respond to anything I had missed in my teaching and coaching.

What are some other strategies that I use that help me to involve my students in the learning process?

Traffic Lights

As my students become familiar with concepts I am teaching, I give quizzes and assignments. The quizzes may take a few minutes at the beginning of class or they may take up most of a class. Often, instead of marking, I use the Traffic Lights strategy: green for good; yellow for warning; and red for stop (or wrong). Assignments are returned and students are given an opportunity to share their successes and discover what did not work by consulting with me and their classmates during class time. After a number of trials, students are given a summative test. I ask students to mark each others' papers in order to extend the formative nature of the exercise as much as possible (I will present how we mark later) and the marks are taken in and recorded[13].

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[13] When presenting this material, I find it worthwhile to spend a few moments talking about how this strategy came to my classroom. It is worthwhile because it tells of opportunities that are available by collaborating with other schools, particularly schools teaching a different age group. I read about "traffic lights" but I saw it working effectively in an elementary school. I spent a PD day at an elementary school. I brought several things back that I was able to use immediately in my classroom with my high school students. As well, this tells of the importance of being given the time to network, communicate and collaborate with other teachers. Our school district and our school administration heard our teacher voices when we said it was important to collaborate with our colleagues. Our district encouraged us to gather in joint PD sessions (that is, PD sessions with other schools) in which we were given time and opportunity to collaborate). Our school administration allowed us to spend our school PD days visiting each others' schools and each others' classrooms.

Comments Only and Feedback

Another strategy I use when marking is to offer Comments Only, possibly focusing on a specific area of the assignment. This strategy came from the *Black Box* articles (Black & William, 1998; Black et al., 2004) and our English department. During one of our staff meetings, two teachers from our English department made a short presentation on marking. They indicated that the best way to help students improve their writing was to let them write, take in the work, and offer comments on how to improve. The English teachers found that they couldn't possibly mark every assignment in detail without drastically cutting the amount of writing their students did, it was too much work. Interestingly, when the English teachers did the detailed marking they found that students did not pay attention to every single comment; they stopped taking notice after the first few comments. By just commenting on one aspect of the work—for instance spelling or punctuation or sentence structure—and adding a general comment, they found students paid more attention and made efforts to improve.

When I heard how well this worked, I decided to try it in my class. In physics, students contend with some fairly complex multi-step calculations. The calculations are often preceded by an algebraic manipulation of an equation. Some students do not come to class with the necessary algebra skills to be able to manipulate complex formulae. Others have some mastery but require practice because of the complexity. With most problems, if algebraic manipulation is incorrect, the remainder of the answer is incorrect. Not surprisingly, this creates great anxiety for some students and they simply stop trying. For the first few trials, I use the Comments Only strategy for the algebraic manipulation. I tell students that the remainder of the calculation is not important, yet. I was initially uncomfortable giving comments and no mark. I felt I wasn't doing justice to their work. After all, they had expended time and effort on the assignment and all I was doing was offering comments and no mark. But I found that, after returning the assignments, a lot of peer coaching occurred usually preceded by comments such as "I don't understand why …" or "How do you …"

When I was a student at school and even now at university in a doctoral program, I recall how I ignored the comments and went straight to the place where I knew the mark would be, as if all knowledge concerning my work was in the "85%" or the "A." In the few classes where instructors used a Comments Only approach, all of my fellow students became avid readers of the comments and didn't appear to miss the grading. With our ingrained desire to give and receive marks, it is understandable that we (teachers and students) experience discomfort when we give or receive comments instead of grades. My discomfort led me to believe that students wouldn't perform very well on their final exams without the guidance of grades or marks for every assignment. Of course, my belief was unfounded and the students performed very well.

Although I did explain to students that we were using Comments Only as an aid to improvement, such is our reliance on marks and grades, that they politely demanded further and deeper explanations. Their demands and comments led to improvements in their teacher's marking technique. As I followed up on my initial explanations I found that their discomfort in receiving Comments Only was replaced by curiosity at this novel approach. They gradually began to use the vocabulary of Assessment for Learning. Not only did phrases such as formative assessment, summative assessment, Comments Only, Second Chances, and so on become part of their vocabulary, they became part of their understanding.

In the project reported in the second Black Box article (Black et al., 2004) one of the teachers involved in the introduction of Assessment for Learning offered the following comments:

> My marking has developed from comments with targets and grades, which is the school policy, to comments and targets only. Pupils do work on targets and corrections more productively if no grades are given. Clare (a classroom observer) observed on several occasions how little time pupils spent reading my comments if there were grades given as well. My routine is now to not give grades, only comments, to give comments that highlight what has been done well and what needs further work and to give the minimum follow-up work expected to be completed next time I mark the books. (p. 13)

The teacher's comments were very similar to many comments made by my colleagues after they introduced Comments Only in their classrooms, particularly with respect to the increase in students' productivity in undertaking corrective measures. Later in the same article, the teacher indicated that she used Comments Only for just one of her classes; she called it her "target class." I wondered why she had chosen just one class. Did the program call for implementation of Assessment for Learning in just one class? Was there a concern about going against school policy, particularly in the midst of the current practice of inspection in schools in the UK? Or were the concerns similar to those in my classroom, a fear of a novel and unfamiliar approach with the presumed potential for producing inflated marks or grades?

Although I have committed much time and many pages to describing formative assessment and Assessment for Learning, it is appropriate that I provide a reminder that there is still a need for summative assessment. I believe that teachers and students need that snapshot which tells us where we are at a particular point in time in our learning, in the course, in a unit or, sometimes, in a particular lesson. I may use the summative assessment tool formatively after the test is over, but it remains a summative assessment.

It is worthwhile to conclude this section with several reminders that valuable feedback can be something other than a percent or a letter grade, and whatever the feedback may be, teachers have to be careful how that feedback is framed.

A synopsis of an extended report of the ARG (2002b) which described the work undertaken to implement Assessment for Learning in a number of schools in the UK, advised: "Teachers should be aware of the impact that comments, marks and grades can have on learners' confidence and enthusiasm and should be as constructive as possible in the feedback they give" (p. 2).

Specifically, what should the feedback look like? Sadler (1989) suggested that the learner must be aware of the goal of the work. The learner must be able to compare the level reached with the goal and be able to close the gap, if necessary. In other words, in setting work and offering feedback, the teacher uses the first 4 steps of Ruth Sutton's 10 steps to ensure students know what the goals are. The teacher facilitates a comparison of actual performance and goals, and then guides students toward appropriate action that closes the gap between actual performance and expectations. Once again, the questions, Where are we? Where are we going? and How do we get there? come to mind.

In my classroom, I am quickly reminded if the quality of my feedback falls below the standards that students have come to expect. I have a stream of visitors with comments beginning with "What do you mean by …" or "I don't understand …" or "You didn't understand what I meant by …"

On such occasions, it seems as though the feedback I am receiving is telling me I should improve. Clarke (2005) offers some guidance:

> The greatest motivational benefits will come from focusing feedback on:
>
> - The qualities of the student's work, and not on comparison with other students;
> - Specific ways in which the student's work could be improved; and
> - Improvements that the student has made compared to his or her earlier work. (p. 71)

In providing specific guidance on how to improve, Clarke suggests:

> For example "You need to improve these two long sentences" merely reiterates the learning goal of "To be able to write effective long sentences." Better advice would be, for instance, "Improve these two long sentences using some short noun phrases such as old features; thin lips; blue, grating voice or something similar."

> Giving "for instances" and specific advice is key to the quality of an improvement suggestion. (p. 71)

The purpose of giving this type of guidance is to help students improve by showing them how to improve. That is, it provides an effective model the teacher can use as a template for students to emulate, initially when they are involved in peer assessment and ultimately when practicing self assessment.

Peer Assessment

One of the most successful strategies I introduced was peer marking. When I first started using peer marking, I had to put aside certain concerns, the first being a concern about the trustworthiness of students. In almost all cases, it was a sufficient deterrent to remain alert to the possibilities of dishonesty, to be open with students, and to indicate that they could be dishonest and may or may not get away with it. However, as we progressed with Assessment for Learning, it became evident that there was less and less point in cheating. Students were given ample opportunity to replace the results of poor performances. If they missed a homework assignment, it was not a case of them seeking opportunities to catch up, it was an expectation. In fact one of my students suggested a design for our homework wall poster with a picture of Lord Kitchener. And, instead of "Your country needs you," Lord Kitchener's emphasis was "You will do your homework."

I was also concerned about the outcomes of peer assessment. I remember thinking, "Will they take this seriously? Will I have to re-mark the assignments myself? I trust students, but are the marks legitimate?" My concern was unfounded. Students turned out to be very good markers, in some cases too tough.

My final concern revolved around the time taken for such an undertaking. Would I still be able to cover the mandated curriculum if I took class time to allow students to engage in peer marking, peer coaching and peer teaching? Ultimately, I found that I didn't have to do as much re-teaching because of the quality of students' peer coaching and peer teaching. They were aids to students' understanding rather than impediments to curriculum coverage.

With help and input from students, peer marking developed into an effective teaching tool in my classroom. I will illustrate using an example of a numerical problem solving exercise. Typically, before class begins, I make up two different problems for students to solve. I give them ten to fifteen minutes to solve the problems and then I collect the papers and redistribute them. We then solve the problems, on the whiteboard—sometimes I ask for volunteers; other times I encourage students to help me by using No Hands or Talking Partners (Clarke, 2005). We collaboratively decide how marks are distributed and students go ahead and mark. When marking, I ask them to include sufficient detail so that the authors of the paper know where they went wrong. I take the papers in and record the marks (students always get an opportunity to replace a poor mark). After recording the marks I return the papers. When I first started doing this I noticed that students always engaged in discussions about how they did, what they did, what they did right, what they did wrong, and what they needed to do to improve. I decided to use this as a formal part of peer marking.

On the next occasion, after students finished their test, I made sure that the markers were paired up—Kara marked Nav's paper and Nav marked Kara's paper. After they finished marking, I instructed them to find the person whose paper they had marked and talk to each other about what was right, what was wrong, and what was needed to put things right. I walked around the class and caught as many conversations as I could. One third of the class did not engage in conversation, other than saying "Your mark is …" One third of the class engaged in conversation only superficially. The final third of the class had constructive and worthwhile conversations; a lot of teaching and coaching happened. There was also a temperature range. Some conversations were calm and sharing, others became heated. After the conversations were over, I redistributed papers to their owners and told students what I had seen and heard. I asked questions of some of the pairings: "What came out of the exercise? What did you learn? What did you teach? Can you tell us about the stand-out parts of your conversation?" Obviously, I chose students who had good conversations. We heard comments such as "Nav explained things better than you," "I understand the formula manipulation part now: I didn't understand it before," "It's good to be able to argue about what we did, it makes things clearer," and "I know where my marks come from and what I need to do better" (Personal communication, April 2005). I finished off the exercise with:

> For the ones who didn't get as much out of this exercise, think about what we have just heard. I am not able to get through to 100% of you 100% of the time. Often, it's up to you to fill in the missing bits. This is a way of helping each other. This is a way of finding out how you learn. By finding out how someone else

> learns, it makes it easier to find out how you learn. Every time I give your papers back to you, I have watched you discuss how well you did, what you did wrong, and what you need to do to correct errors. All I'm asking you to do with this exercise is do your coaching and teaching in your marker pairs instead of after you get your papers back.

After more encouragement on my part, modeling from the most productive pairings, and mixing and matching pairings, I found that all students were taking advantage of the discussion time to listen, teach, and coach. The conversations spilled over into our tutorial times before school and at lunch times.

Second Chances

> If teachers follow assessments with helpful corrective instruction, then students should have a second chance to demonstrate their new level of competence and understanding. This second chance helps determine the effectiveness of the corrective instruction and offers students another opportunity to experience success in learning. (Guskey, 2003, p. 10)

This seems like a simple measure and a simple process. The teacher gives a test, for instance, the test is marked, corrective instruction takes place, and the student repeats the test. But the student can't repeat the same test or assignment—the teacher has to make up a second test or assignment that covers the same material as the first and assesses students at the same level as the first. That is a lot of work.

The Second Chance strategy caused as much controversy in our school as any other. Some teachers suggested that giving second chances was unrealistic, it is not what happens in the real world. I remember being part of a small audience of science teachers when Robert Hogg of the Alberta Assessment Consortium was introducing us to the next steps in Assessment for Learning. He brought up the subject of Second Chances and several teachers (including myself) expressed some opposition to it. I believe Robert was using the Guskey (2003) article when he pointed out (and justified the use of second chances to many of us):

> Yes, you are right; often we don't get a second chance out there in the real world. A surgeon doesn't get a 'second chance' to perform an operation successfully and a pilot doesn't get a 'second chance' to land a jumbo jet safely. But, we must remember how these people developed their skills. The surgeon's first operation was on a cadaver, the patient wasn't likely to complain and the surgeon was able to correct any errors and learn from mistakes. During training, pilots developed their skills in a flight simulator; they too can improve their performance by learning from mistakes. (Personal communication, June, 2005)

The second major concern was expressed in this way by one of my colleagues:

> Let's assume that our students write a test. Many of them do well first time. Let's say three students don't do as well and are offered the opportunity to re-write a similar, but not the same test. These three students pass the second time and get better grades than some of the students who only had one opportunity. Is that fair? (Personal communication, June, 2005)

I found this difficult, and I don't think I provided a very satisfactory answer. The justification I provided was very similar to that provided by Guskey (2003). First of all, I acknowledged that the reason some students fail a test first time around is lack of adequate preparation. However, I did remind my colleagues that we are unlikely to hit 100% of our targets 100% of the time. In other words, it is likely that we didn't use the appropriate teaching strategy for at least some students. One benefit of Assessment for Learning is that not only do students get a second chance to learn, but also teachers get a second chance to teach and to learn. We can use the results of summative assessments formatively to inform learners' learning and teachers' teaching. Going back to the three students in the example provided by my colleague, should an 80% (for instance) achieved on a second test (a Second Chance) be regarded as highly as an 80% achieved on the first test by another student? I would say yes, and once again I use Guskey (2003) to help:

> A comparable example is the driver's license examination. Many individuals do not pass their driver's test on the first attempt. On the second or third try, however, they may reach the same high level of performance as others did on their first. Should these drivers be restricted, for instance, to driving in fair

> weather only? In inclement weather, should they be required to pull their cars over and park until the weather clears? Of course not. Because they eventually met the same high performance standards as those who passed on their initial attempt, they receive the same privileges. The same should hold for students who show that they too, have learned well. (p. 11)

The puzzle set by my colleague made me think of some of Dweck's (2000) work. If we don't offer second chances, I believe we are pushing our students to adopt performance goals within an Entity Theorist's framework. We are limiting students to one chance at showing their mastery of a certain skill or skill set. If they pass, then they performed successfully. If they failed, then we are condemning them and they don't get another chance. There is no room to experiment, no safe environment, and for the students who fail, hope begins to drain away. If we are willing to give second chances after corrective instruction, we are telling students that it is not the end of the world if we make errors as long as we learn from them and that we are going to work together, learn from our mistakes, and do better next time. We are promoting learning goals—steering our students away from an Entity Theorist's approach and toward an Incremental Theorist's approach where they will adopt a mastery orientation in dealing with challenges and solving problems.

The final concern my colleagues came up with was the amount of time required to produce the alternative tests or exams so that students can take their second chances. But it is not only the second chances it is the extra work and additional concerns that accompany second chances. Allow me to tell the story of two teachers, Ms. Traditional and Mr. Forlearning. As I am sure the reader is aware, the story is a work of fiction and any likeness to real people and real events is entirely intentional.

Ms. Traditional teaches mainly using a lecture style, hardly ever needing to consult her notes and lesson plans because she has been teaching the same for so long. She assigns weekend homework. During class on Monday, she doesn't take in the homework but deals with any questions arising from the homework. This usually takes 5 to 10 minutes. On Tuesday, her students are given a 10 minute test on the homework. Ms. Traditional quickly marks the tests, enters the marks, and returns the tests with a mark out of 10. At the end of each unit, there is a unit exam which lasts one full class period. The exams are marked; Ms. Traditional enters the marks and prefers not to return the exams to the students. That way, the exams can be used for future classes.

Mr. Forlearning uses a lecture style occasionally but prefers class discussions and two-way questions and answers combined with peer teaching and coaching. His students engage in testwork, but he calls it collaborative problem-solving because that is what it is, a group of students and (when necessary) the teacher involved in solving problems. His students do practice tests, which Mr. Forlearning and his students use formatively to discover where they are in their learning journey and what they need to do next. His students usually do a summative test once or twice per week when he thinks they are ready. Typically, if a student feels he or she hasn't performed on the test, there is the option of doing an alternate test. Mr. Forlearning spends a significant amount of time thinking about his lessons and the questions he will pose verbally in class. He also spends a significant amount of time compiling questions for his students' problem-solving exercises, their formative tests, practice tests, summative tests, and their alternate tests.

He assigns homework. Sometimes he does a homework check to ensure his students have completed the homework. If they haven't, he finds out why—is it a case of didn't want to do it or couldn't? Whatever the reason, he ensures his students complete the homework before school, after school, or at lunch time. Sometimes he spends more time marking the homework, particularly if they are having problems with a difficult concept. At the end of each unit, he poses questions that may appear on unit exams. They work on them together, as a class, then in small groups, and after achieving a certain level of comfort with the material and with the type of questions, they work relatively independently. Then there is a unit exam. The unit exam is a summative assessment, but Mr. Forlearning ensures students learn from their errors by going through the exam in detail. Students get two opportunities to replace a poor unit exam mark. Mr. Forlearning can't re-use unit exams; he has to put together a new exam for each unit, for each class, for each semester. He finds this time consuming but he feels it makes him think about the mandated curriculum (if it has been covered adequately), about his teaching (if the students understand what has been taught), and about how well his students have been prepared (if they are ready for the test, the unit exam, the diploma exam).

Obviously, Assessment for Learning is time consuming. Second Chances makes it even more time-consuming. When plates are full, it is temping to follow Ms. Traditional's lead rather than Mr. Forlearning's.

Larger high schools may have the luxury of several teachers teaching the same subject and many hands make light work. Smaller high schools and most junior high schools do not have that luxury. District leadership did put aside some PD time as we implemented Assessment for Learning. We used the time to network, collaborate, and lighten the load. But the extra work involved in making Assessment for Learning work can be draining.

No Hands, Talking Partners and Questioning

I have been in situations in classrooms where one or two or a small number of students ask questions and answer questions while others remain quiet. In some classrooms I have visited, it appears that the teacher and one or two or a few students are actual participants while the remaining students are spectators. The level of interest shown by the spectators has ranged from intense to passive. If Assessment for Learning is to be a part of classroom practice, students must be involved. How did I overcome students' reluctance to be involved? Using No Hands and Talking Partners helped create a safe environment in my classroom in which reluctant students were encouraged to become more involved.

Questioning can be used to encourage student involvement, it can also be a deterrent to student involvement. Sometimes, teachers ask questions that have one correct answer (Harlen & Winter, 2004). Students with an Entity Theorist's approach may answer, if they are sure they are going to get the answer correct. If not, it is unlikely that they will raise their hands. Students with an Incremental Theorist's approach may or may not attempt to answer. Their learning goals dominate their performance goals, their incentive to answer is limited—what is the point of answering if it is not going to add to their learning? The main goal of asking questions is to stimulate communication with students. The reason for the communication is to encourage students to answer and ask questions. From their questions and answers can be determined where students are in their learning, where they need to go in their learning, and how they are going to get there. The questions I ask "should invite more than a one-word answer; they should encourage learners to say what they really think, not to guess what answer the teacher is looking for" (Harlen and Winter, 2004, p. 398).

In addition to types of questions, it is important to leave sufficient wait time between question and answer. I found that I was guilty of not giving students sufficient time to think of the answer to a question. Consequently, "the only questions that work are those that can be answered quickly, without thought [and] the dialogue is at a superficial level" (Black et al., 2004, 11).

How did I improve questioning? I increased wait time, used Talking Partners and No Hands, and attended to the way in which I asked questions. I had to make a conscious effort to increase wait time. Some colleagues found increasing wait time to be an uncomfortable experience. A comment from a teacher involved in an Assessment for Learning project in the United Kingdom captured many of my colleague's thoughts and feelings:

> Increasing waiting time after asking questions proved difficult to start with due to my habitual desire to "add" something almost immediately after asking the original question. The pause after asking the question was sometimes "painful." It felt unnatural to have such a seemingly "dead" period, but I persevered. Given more thinking time, students seemed to realize that a more thoughtful answer was required. Now, after many months of changing my style of questioning, I have

> noticed that most students will give an answer and an explanation (where necessary) without additional prompting. (Black et al., 2004, p. 12)

I used Talking Partners to encourage reluctant respondents to speak up. When Talking Partners came to my classroom it was new to students, it was new to me. We went through a learning experience in order for Talking Partners to be a successful part of Assessment for Learning. In a very similar way to the teaching and coaching part of peer assessment, I had to model what was expected of students, I had to listen to certain groupings, sometimes coach and other times simply listen and learn how they were making Talking Partners work. I found the easiest way to do it, for me and for students, was to circulate in class, listen to conversations, and use the successful conversations as models for other students to follow. Initially I found the reluctant respondents spoke through their talking partners. And eventually, as they perceived the environment to be relatively risk free, they spoke for themselves. I used No Hands to maintain the involvement of the reluctant respondents.

I paid attention to how I asked questions and what type of questions I was asking. At the end of each class, I tried to remember the questions I had asked (and, of course, how much wait time I had given). When I didn't pay as much attention, I found myself asking questions requiring one word answers or questions that required pat answers. Harlen and Winter (2004) give an indication of the types of questions I should have been asking:

> Is it always true that …? Explain.

- Is it ever false that …? Explain.
- How many different ways can you find to …?
- Give me a definition of …in your own words.
- What is the same and what is different about …?
- What is wrong with the statement (or what is wrong with what I have just written or just said) …?
- What other information do you need to solve this problem and how would you use that information?

And, as Clarke (2005) suggested, it is perfectly fine to ask a basic recall question such as "In which layer of the leaf does photosynthesis take place?" providing there is an open question ready to back it up such as "What might be the reasons for this?" The goals of these types of questions are to engage and involve students in a class discussion, to deepen their understanding, and to help me understand and be aware of how much learning is taking place and has taken place.

What to do with wrong answers? Clarke (2005) indicates that a teacher typically reacts to a wrong answer by giving "a side-stepping response and moves to someone who does" (p. 50) know the correct answer. I would dispute whether all teachers are so abrupt but I have occasionally been guilty of seeking the one correct answer to my questions. Such behaviour from a teacher does not promote students' involvement. Again, one of my colleagues came to the rescue during a PD session. She used wrong answers as a valuable learning tool. She likened the exercise to a number puzzle. I will once more use the pendulum experiment to explain. The formula for calculating the period of a pendulum (the amount of time it takes a pendulum to swing once, to and fro, back to the same position) is given by:

$$T = 2\Pi\sqrt{\frac{l}{g}}$$

Π = the constant pi = 3.142;
l = the length of the pendulum in metres;
g = acceleration due to gravity in metres/second^2; and
T = period in seconds.

My colleague begins the exercise by posing this question:

> What is the period of a 1.5 metre long pendulum when the acceleration due to gravity is 9.81m/s^2. The answer given by one particular group was 0.96 seconds. The answer was wrong, what error did the students make in the calculation?

Typically, students begin by calculating the correct answer, which is 2.5 seconds. Eventually, they discover that the students who made the error forgot to take the square root sign into account during the calculation. When I used this wrong answer strategy I found, as my colleague did before me, that it added an interesting twist to a question. Students appreciated the different approach. It gave a deeper understanding of the concepts involved, gave some insight into where errors may have occurred and, most importantly, it showed the value of wrong answers and the worth of delving into why they were wrong. I usually do several exercises like this to show how valuable wrong answers can be and finish the overall exercise by telling students that correct answers are great but wrong answers can be just as valuable, depending upon how we use them.

Exams

I have already related how students work in groups on practice exams in order to prepare for unit exams, mid-terms, and finals. Although it usually takes longer for a group to complete an exam than it does for a student working independently, it is well worth the extra time for both students and teacher. The extra time is, of course, because of the teaching and coaching that occurs. Students gain a deeper understanding of the material as they coach and teach. I am able to circulate and listen to the group discussions. It is flattering that many of them use a way of teaching and presenting that is similar to mine, even in a small group forum. However, they are often more in tune with each others' thinking than I. I am often the beneficiary of a better way to teach or present something, a way that I would never have thought of without listening in to their worlds. It was while working on practice exams that we (my students more than me) came up with a novel and, what turned out to be, a valuable way of dealing with exams.

We were close to the end of the unit and not too far away from taking the unit exam. I asked the students what they thought of the previous unit exam. "Pretty much sucked" (Personal communication, April, 2005) was Karen's response. "Sucked in what way?" I asked. A selection of the replies: "well it made us think," "it was boring," "you could've been more imaginative," "we had to know all the stuff in the unit but the questions were dull" (Personal communication, April, 2005). So I had done a decent job of coverage but the level of excitement was pretty low. My lame reply was, "So, you think you could do better." With their "Of course, piece of cake" (Personal communication, April, 2004) response, the challenge was on. And so began one of the most worthwhile learning experiences for both teacher and student. I encouraged students to compile their own unit exam. I have since repeated the process many times and intend to continue doing so. Several of my colleagues also started doing the same.

Next class, we decided that the make-up of the exam should stay the same, 20 multiple choice questions, 5 numeric response questions and 1 long answer question. We also decided that each student should come up with 10 multiple choice questions, 2 or 3 numeric response questions, 1 long answer question, and an answer key. Students could use their notes, the textbook, and the Internet as resources. They found that their first attempt was not "a piece of cake." However, I noticed a lot of searching through notes, reading the text, Internet searching, and discussions revolving around the course material. When I called for the questions to be handed in, I was asked if they were going to be marked. I replied that they were not going to be marked until everyone had the opportunity to complete corrections. I looked through their questions, and, as with my first attempts at putting an exam together, they needed a lot of work. Initially, I wasn't sure how to proceed. Should I talk generally about the different types of questions? Should I introduce Bloom's hierarchy? Would it be too much for the students? Do we have time? I finally decided to teach it as though I meant it; I didn't feel there was much point in delving into such a subject as building exams if it was dealt with superficially. Next class, I handed back the questions, without marks or comments. I told the class that we would continue working on the exam questions but we needed to look at the questions they had developed and modify them. I used something similar to the table:

	What do students need to do?	Examples of questions
Knowledge	Define, recall, describe, label, identify, match, name, state.	Define "biomass. What trophic levels provide energy to decomposers? Who developed a naming system for organisms based on their structureand relationships to other organisms?
Comprehension	Translate predict, explain, summarise, describe, compare, classify.	Explain how PCBs pass through organisms in food webs. Using the graph, predict what the human population will be in the year 2020. Describe the effect that water and its inhabitants have on the oxygen cycle.
Application	Demonstrate how, solve, try it in a new context, use, interpret, relate, apply ideas.	An ecologist did a population survey of a field of wheat. He found that there were 3,000,000 wheat plants, 2 coyotes and 2,000 meadow voles; draw a pyramid of numbers using the ecologist's data. Suppose a recessive genetic disorder occurs in 9% of the population. How is it possible to determine what percentage of the population is heterozygous or carries the allele for the disorder but does not have the disorder?
Analysis	Analyse, explain, infer, break down, prioritize, reason logically, reason critically, draw conclusions.	For a hypothetical moth population that is freely interbreeding, suppose that 60% of the moths are white coloured and 40% of the moths are dark coloured. White colour.(W allele) is dominant. In three years, the observed colour percentage changes to 65% white and 5% black. What does the shift say about the black phenotype?
Synthesis	Design, create, compose, combine, reorganize, reflect, speculate, hypothesize.	Formulate hypotheses of how altering the carbon cycle by burning fossil fuels might influence the other cycles. With a planet 70% covered by water, how can we be running out?
Evaluation	Assess, judge, compare and contrast, evaluate.	What are the similarities and differences between man-made recycling programs and natural recycling (such as biogeochemical recycling)?

(Adapted from Brighton and Hove Local Education Authority, 2003).

We discussed each row in turn and tried to come up with questions to illustrate each type of question. The questions we came up with were not necessarily from this unit, nor in some cases even from science. The main difficulty was slotting some of the questions into their specific categories. Students were not alone in finding this task difficult. Some of the questions they developed could justifiably fit into two or more different categories. I suggested that the specific category was not of overriding importance. What was important was being able to develop different types of questions involving different kinds of thinking. And so what if the questions overlapped into two or more different categories (or we could provide justification for them doing so).

It took another two or three classes to finish writing exam questions. However I felt that the exercise was worth the effort. By reviewing, researching, and discussing, students spent three or four classes studying for their upcoming unit exam. They may not have been expert question writers, but they did gain some insight into the different types of questions they were likely to come across and into what was required to answer the different types of questions. Most importantly, there was a tremendous sense of involvement from the students, particularly when they saw their questions on the unit exam, mid-term, and final.

No Zeroes, Fail Lists, Tutorials and Admin. Support

District's No Zeroes policy was front and centre as we introduced Assessment for Learning to students. I described some of the difficulties that teachers and administrators had with the policy. After the teachers reached an understanding of the meaning and intent of the policy, it became an integral part of Assessment for Learning. More than anything else, No Zeroes meant we would not accept zero effort from our students. Although it started off as a No Zeroes policy, it came to be an "alternative to zeroes" policy. However, the label No Zeroes stuck.

The best way to describe how No Zeroes fits into my classroom is to briefly describe a typical school week. Throughout the week, as we (students and I) work through course material, I assign various tasks. The tasks may be to finish questions or problems from the workbook or text, and the work is due the following Monday. The due date allows students up to a week to come and ask about any difficulties they encounter. For some of the assignments, I simply do a homework check, no more than a glance through just to make sure the work is done and generally looks correct. I am open with students. I inform them how the assignment has been marked, and I trust them to ask when they experience difficulties. With other assignments, I take more care. This is as much for my benefit as it is for students. I need to know how effective I was; I need to know if students understood the concepts I taught last week.

The homework task is recorded on a wall chart. If the work is completed on time, the student receives a green check mark. If the student hands in late (next day) there is a late charge of 20%, and the student receives a yellow check mark. If the student does not hand in next day, a score of zero is entered in the marks program and a red check on the wall chart. I first saw a similar wall chart used at an elementary school. I initially thought it was too childish to use with high school students, but I gave it a try. I find that students use it extensively. They use it as a prompt for homework assignments, as a reminder that they are late with a particular assignment (when necessary), and as a general indicator of their performance on homework assignments.

Students who receive a red check mark are obliged to "voluntarily" approach me during a tutorial period and ask for an alternative assignment. The assignment is similar in length to the original assignment, its due date is negotiable, and there is a 20% late charge. If any students choose not to complete an alternative assignment, I talk to them in class or, if they avoid my class, I visit them in their other classes. Failing that, I phone home and discuss the non-compliance with parents. Most of the time, one or more of these strategies is successful and the work is done. The purposes are to show our students that they need to work, that we (their teachers) don't consider failure an option, and that not only do we care but we will go to great lengths to show we care by doing as much as we possibly can to ensure their success.

Occasionally, I come across students who refuse to comply. When this occurs in classes other than mine, the student's name is forwarded to me, as department head. I pay the student an in-class visit, phone home and repeat the message that the teacher has already given to parents. The strategy consumes a lot of teacher and department head time. Teachers occasionally point out that we are spending a lot of time on a few students, pulling, pushing, and dragging them through their courses. The question is often asked, "Are these students going to create problems when they attempt the next (higher) level?" But we also notice that students are successful, passing courses, and most of the time awakening to the need to improve. Results show that we are being effective. I remember one occasion when I discussed these issues with students; one of them captured the words of many:

> Well, it's kinda friendly and it's not in your face … too much. We know that you are keeping an eye on us. Yea, we know it's best for us. And we know you care. But we know that if we don't work you are there and it's like going to get in your face. (Personal communication, November, 2005)

If there is still some reluctance on the part of the student, an assistant principal is involved. There is a third phone call to parents who are asked to come into school. This doesn't happen very often. It is usually a student whose attendance is sporadic and who, because of the poor attendance, finds it difficult to keep up.

Does this take time? Yes, lots of time, particularly when the strategy was first introduced. There was a painful transition to No Zeroes. Initially, some teachers found that chasing students was too time-consuming. As we persisted with the strategy, the time commitment diminished but it didn't go away. Our administrators helped; they allowed us to focus more on our students and less on peripheral issues. They took a look at hallway and cafeteria supervision schedules and identified areas that were over-supervised. They assumed additional supervision duties themselves so that we could be involved in tutorials instead of supervision.

As well as requesting names of our non-compliant students, every two or three weeks I ask teachers in the science department for names of students who are struggling and some indication of why they are struggling (these are fail lists, a term which I don't like but it seems to have stuck). My intent is to follow up by visiting classrooms and talking to struggling students. However, I found that I didn't have the time. But we did catch some students, and maybe the threat was sufficient in some cases to encourage other students to be more compliant.

A Problem

A major issue, related to No Zeroes and Second Chances revolved around students promoted to a higher level course before they were ready. This has been a major issue at our school for as long as anyone can remember and was a source of tension among students, teachers, and administration. However, it doesn't seem to cause as many problems in other district high schools. Let me illustrate using an example of a student in a Grade 11 biology class, Biology 20. In order to pass the course and gain 5 credits toward a high school diploma from Alberta Education, a student needs a mark of 50% percent. In order to proceed to the next level, our school recommends a mark of 60% percent[14]. The problem is the word "recommend." According to Alberta Education, if a student receives a mark of 50% or better, that student is entitled to go to the next course. Typically, in other schools, unless a student achieves a 60, 65, 70 or 75%, depending upon the school and its recommendation, barriers are put in place to inhibit the student's progress. For instance, one school requires that a student obtains a teacher recommendation in order to progress. If the teacher does not recommend progression to the next level and the student insists on going to the next level, the student's parents must contact the school. The parents are encouraged to meet with the assistant principal, teacher, and counselor. The counselor, assistant principal, and teacher (and sometimes even the principal) will try and dissuade the student (in the presence of his/her parents) from progressing to the next level and recommend that the student repeat the course. Occasionally, the student and parents insist that the student go to the next level, the student's progress is closely monitored. If problems are encountered, remedial action is taken. Often the student returns to the lower level course. Why is this done? The way that I explain it to my students is this:

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[14] Some schools in our district recommend a mark of sixty percent (others, sixty five percent) in order to proceed to the next level, Biology 30. I found that some other school districts recommend a mark of seventy or seventy five percent in order to proceed to the next level.

> Assume you have a mark of 50%. Simplistically, that tells us that you know 50% of the material from the Biology 20 course (for example) and also that you are pretty shaky on the other half. If you know only half the stuff, is that good preparation for Biology 30? Not really. In fact, students who go into Biology 30 with a mark of between 50% and 60% from Biology 20 are not usually as successful as they want to be in Biology 30. Typically, their mark drops a few percent. However, the students who repeat Biology 20 gain a firmer foundation and usually find success in Biology 30.

Unfortunately, at our school, students are allowed to go to the next level with a mark of 50%. Why is this? Is it a result of the implementation of Assessment for Learning? In striving to involve students in decisions about their education, are we involving them in the decision-making and allowing them to make decisions which are based on limited information? Or is it because our marks, historically, have not been as high as those of other schools? No one has yet provided an answer. If we allow students to take courses without adequate preparation, do we create false expectations leading to experiences of failure? I believe we do.

I have wondered why there is such a discrepancy between pass mark and recommended mark in the prerequisite course. Why can't we make the recommended mark and the pass mark the same 50%? I find that the standards in the prerequisite courses are such that too many students would fail the next level. One answer would be to raise the standards. For example, we could make the 50% pass mark in Biology 20 equivalent to the present prerequisite of 60%. What happens when too many of students fail to obtain their 5 credits in Biology 20? Does this translate into more students without a high school diploma and less income for schools (we are funded on credits obtained)? We could raise the pass mark. But raise it to what? Different schools with different pass marks would not work, and we would have the problem of lack of credits, reduced funding, and fewer high school diplomas.

I have not mentioned the frustration this causes for me as a teacher and a department head. There have been situations where students scraped through prerequisite courses, with marks in the low 50s, and enrolled in 30-level courses. These students struggled from day one. The teacher was faced with a dilemma:

> Do I help the strugglers and risk not covering all the course material to the detriment of the majority of the students? Do I push the strugglers to attend tutorials? And what do I do when they refuse? Do I forget the strugglers? Do I opt for some middle ground? (Personal communication, September, 2006)

Whatever option is chosen, it seems as though a tough job is being made tougher. As a teacher, I expect and can cope with a range of abilities in students. Why then is the range of abilities widened by misplacing students in courses which past experiences have shown are too advanced? My frustrations echo a passage from Dweck's (2000) book:

> It's as though we have bought into the Entity Theory, in which children require constant success to feel good about themselves and in which failures send a negative message about intelligence and worth. We are in fact operating within this theory when we attempt to puff children up and boost their egos instead of boosting their effort, when we try to hide their deficiencies instead of helping them overcome them, and when we try and eliminate obstacles instead of teaching them how to cope with them. (p. 127)

No Science 14

For me, the most striking developments that came from our Assessment for Learning initiative were the changes in attitudes, the enthusiasm for teaching and learning, the willingness to seek novel solutions, and the courage to implement them. They were all captured by my experiences with Science 14. Students are placed in Science 14 because they have not performed well in junior high science. Students were just as aware as I was of the stigma that Science 14 carried. Some thought Science 14 was a course for "science dummies," or for people who were "science failures." Many students were convinced and resigned to the fact that they couldn't do science, and they adopted the helpless attitude described by Dweck (2000). Yet others, I found, were happy with Science 14; they didn't want a more rigorous course[15].

I have included one Science 10 and two Science 14 course descriptions (as footnotes) that are typical of those used in our district's high schools. Before I wrote this section, I had never really read these course descriptions. Science 14 is quite clearly for students who have had difficulties. According to the course descriptions, students will develop a "practical appreciation" and "basic science literacy." And successful Science 14 students are awarded 5 credits toward their high school diploma. When I read the course description for Science 10, it told me of the course's importance and the promise that success in the course brings.

During classroom visits and walks through classrooms, I heard comments from Science 14 and Science 24 teachers that certain students could handle Science 10 if they were given the appropriate push. Our Science 14 students did not escape involvement in Assessment for Learning. They were pushed to complete assignments, improve, and become involved in the learning process. But the problem was we were not really giving Science 14 students opportunities to do anything with their improvements. The odd student was going through to Science 10 while the remainder went directly to Science 24 or repeated Science 14. The prospects of a typical Science 14 student were limited. The enthusiasm generated by teachers and students was lost when subjected to such limitations. So the Science 14 teachers and I decided to do something about it.

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[15] Science 14: This course is designed for students who experienced difficulty in Grade 9 Science and Math. The four required units of study in this course are body systems, properties of matter, investigating the environment and understanding technology. The course focuses on developing a practical appreciation for science and basic science literacy. A student who successfully completes Science 14 and Science 24 will meet the science requirement for a high school diploma.
Science 14 is a general introductory course to biology, chemistry and physics that emphasizes the applications of science. It is designed to meet the needs and interests of students who have experienced difficulty in junior high science and mathematics but are aiming for a High School Diploma. Units to be covered include the human body, household science, science technology, and investigating the environment
And compare them to the following course description for Science 10:
Science 10 is the foundation course for all academic senior high science courses. Students, upon successful completion of the course, may choose to enroll in Biology 20, Chemistry 20, Physics 20 or Science 20. Science 10 has the goal of educating students about the nature of science and technology and how they impact our society as well as helping students better understand and apply the fundamental concepts and skills that are common to the areas of biology, chemistry, physics and earth science.

The solution came quickly and easily. We decided that because of the negative attitudes associated with Science 14 and the roadblocks to further progress and achievement, we would do away with the course. Instead of Science 14, the course became Science 10 Prep.—a course intended to prepare students for Science 10. We decided that there were two challenges to overcome. The first concerned the content of this new Science 10 Prep. course. The teachers went through the Science 14 curriculum and decided that they could cover the material necessary for students to receive 5 credits for completing the Science 14 curriculum and, at the same time, they could emphasize the material that students would need to prepare for Science 10. In other words, they were comfortable in being able to prepare students for Science 10. The second challenge was to attend to a comment made by a colleague. I don't believe the comment stemmed from cynicism, it was genuine concern and served as a warning to us: "Just remember, changing the title doesn't necessarily change what's in the book" (Personal communication, June, 2005). We felt that we could shift the negative perceptions of Science 14 and all that it meant, or did not mean, to positive perceptions of Science 10 Prep.

We first of all presented our intentions to administration. The results were seen in changes to our program guide—which is distributed to our junior high feeder schools—and to our presentations to our junior high feeder schools. The changes emphasized the new course as a preparation for Science 10, specifically catering to students who have experienced difficulties in science and who wanted a second chance. Next, we presented our plans to our colleagues and asked for input and for their help in promoting the course to their students. We knew that current students would, most likely, not be taking Science 10 Prep. But we felt that such promotion would be worthwhile within our community of learners because our intentions would be conveyed to families and future students. As we continued planning for the new course, we decided to offer the course in Semester 1 and link it to a Science 10 class in Semester 2. Our intent was for the same teacher to teach Science 10 Prep. and the linked Science 10 course. We felt that the teacher would get to know the students, be able to progress at her own pace through the Science 14 material, and push on to the Science 10 material at an appropriate time. The Science 14 course was designed by Alberta Education—the individuals responsible did a remarkable job in overhauling the course. The course was more closely aligned with Science 10 which made it much easier to implement a Science 10 Prep. course and offer students opportunities to progress beyond Science 14 and Science 24.

How is Science 10 Prep. working? To begin with, students were placed in Science 10 Prep for a reason. They didn't do very well in their previous science classes. Typically, science was not the only course in which they had experienced difficulty. Quite possibly, school had not been an enjoyable or satisfactory experience. Science 14 classes were populated by a significant number of students that could be described as "at risk." We were at risk of losing them. There was a high likelihood of them practicing avoidance and dropping out. From my conversations with these students, their level of engagement in science was limited. Prior to implementing Science 10 Prep., I wandered through classrooms and the disengagement was evident. It was very frustrating for teachers. They tried their best and they found it very difficult to motivate Science 14 students.

While preparing for the changes to Science 14, I read some of the literature on school drop-out rates and reasons for dropping out. I was surprised at what I found. Black (2003) suggested that school officials and teachers "tend to blame high dropout rates on parents and (by extension) communities especially those devastated by social problems such as poverty, drugs and crime" (p. 1). And I would not disagree, but she went on to describe kids' decisions to drop out and found that across all racial/ethnic and gender groups, "The pattern was consistent: Most frequently students cited within-school factors (such as poor relationships with teachers); less frequently they cited out-of-school factors (such as needing a job)" (p. 1). Of those within-school factors, "a curriculum that lacks academic rigour for all students" (p. 2) was one of the most frequently cited causes of pushing students out of school. A story offered by Finnan and Chasin (2007) brought to mind some of the students I had seen during my classroom visits:

> Throughout his years in school, Anthony had never been pushed to excel and no one had taken the time to build on his potential. He quickly adopted the attitude that school was a boring waste of time. He saw himself as an academic failure, and his middle school, judging by the academic record that he had created, agreed. By the time Anthony entered high school, he was completely disengaged from high school learning he attended classes but did the minimum possible to pass to the next grade. His high school didn't seem to expect any more from him.

> And so Anthony and his school entered into an unwritten pact, we won't push you too hard, and you won't have to work too hard; if you show up, stay out of trouble, you will pass. (p. 2)

Lee and Burkham (2003) conducted a major study of high school drop-outs in which the researchers sought the opinions and comments of high school students. They found that high schools that provide challenging courses and made efforts to keep students engaged in higher level learning have far fewer drop-outs. The finding most relevant to our efforts in replacing Science 14 was:

> Making courses easier in order to keep students in school does not work; instead, requiring all students to take rigorous courses tends to benefit at-risk students as well as high achievers. When students who fall behind receive remediation and extra help to succeed in their academic courses, they are less likely to drop out. (p. 3)

Finally, a study by Azzam (2007) surveyed high school drop-outs: "A majority of students said that they were not motivated to work hard, but they would have worked harder had their teachers demanded more. Seventy percent believed that they could have graduated if they had tried" (p. 2). It seemed as though we were steering students in the right direction. We were taking a fairly easy course and adding rigour. Teachers indicated that there was an initial transition period in which they had to help students move away from a Science 14 attitude to a Science 10 Prep. attitude. In this transition period, teachers suggested that the Science 10 Prep. students were higher maintenance than other classes. One of the Science 10 Prep. teachers remarked: “Once they realized we were serious, that they were not Science 14 students, that they did have somewhere to go, and that the door was open to Science 10 and on, there was a gradual change in attitude” (Personal communication, December, 2005).

We have three awesome teachers who are looking after Science 10 Prep. All three told me that, as the course progresses, there is a gradual attitude change from the Science 10 Prep. students. There is more focus, our students are more businesslike—they are taking the opportunity to succeed. There has to be that initial push and that notion of, “Yes, you are going to improve and progress,” and “No, we are not going to allow you to fail,” then they fly. The teachers are enjoying teaching Science 10 Prep. students far more than they were enjoying teaching Science 14, yet they are the same students.

Around 50% of Science 10 Prep. students go on to Science 10 instead of progressing from Science 14 to Science 24 (and that is the end of their high school science). And, after experiencing success in Science 10, they have the option of progressing from Science 10 to Science 20 to Science 30. Or from Science 10 to Biology/Physics/Chemistry 20 to Biology/Physics/Chemistry 30.

Although I might think that most of these kids are not going to be honours students and maybe not going to university, how do I know that? Shouldn’t they be given every opportunity to be honours students and to go to post-secondary? I have tracked their progress from Science 10 and I have found that most Science 10 Prep. students who progress to Science 10 go to Science 20 and, presumably, on to Science 30. The odd student has taken the more academic route of Biology/Physics/Chemistry 20. It is interesting that our strategy has resulted in more students taking more science courses and gaining more science credits, so much so that we had to hire a new science teacher at the beginning of last school year in order to cope with the extra classes.

I debated whether or not to include this part of the story in my presentations and in this story. Initially I didn't think it was part of Assessment for Learning. But, going back to Sutton's (2005) comments and notions about what Assessment for Learning meant, the Science 10 Prep. story is all about student involvement. After the transition from Science 14 to Science 10 Prep., teachers reported a greater level of engagement, students were more involved. It seems as though the involvement is being sustained as they progress through Science 10 and on to the next level.

Puzzling

When I first introduced Assessment for Learning to my classroom, students were accepting, possibly more accepting than I was because I was reluctant to introduce Assessment for learning to diploma students. The successes of non-diploma students gave me the courage to introduce Assessment for Learning to diploma classes. They also made me realize that I was creating an unfair advantage by introducing Assessment for Learning to one group of students and not another. The successes of diploma students showed my fears were unfounded.

I resolved some parts of the puzzle as I collaborated with students to develop exam questions and used strategies, such as No Hands, Talking Partners, and peer assessment, passed on from colleagues and gleaned from my reading, to involve students in collaborative curriculum-making. Introducing Second Chances simultaneously helped me to resolve another part of the puzzle (regarding student involvement) and added to the puzzle. Second Chances was at the heart of student involvement. However, it created extra work for teachers and was, from some perspectives, in conflict with notions of students being responsible for their on learning. I wondered if I should continue to actively promote Second Chances or if I should allow teachers to find their own ways with the strategy. But Second Chances was so important for student involvement. It went hand-in-hand with No Zeroes and was key to student success through Assessment for Learning, so how could I not promote it?

School administration added another piece to the puzzle by allowing students to progress to a higher level course without the recommended prerequisite. It caused tensions in the classroom. A colleague's questions added to the puzzle:

> Do I help the strugglers and risk not covering all the course material to the detriment of the majority of the students? Do I push the strugglers to attend tutorials? And what do I do when they refuse? Do I forget the strugglers? Do I opt for some middle ground? (Personal communication, September, 2006)

It caused tensions between teachers as questions concerning inadequate preparation for higher level courses arose. Clearly, it had the potential to cause tensions between teachers and administration. As I worked with others to try to shift the story of school toward Assessment for Learning, my research puzzle began to deepen. I realized that the storied landscape of school needed to shift.

CHAPTER 8. TEACHERS' STORIES

Roxanne's Story

I met with my colleague several times. She chose the name "Roxanne" to preserve her anonymity. Roxanne suggested that her story was a rambling account of her association with Assessment for Learning. However, I found her story to be an eloquently told account of her involvement with Assessment for Learning. She was one of the key people responsible for bringing Assessment for Learning to our school district and to our school. She showed many of us how to adapt Assessment for Learning to our learning styles, to our teaching styles, and to our classrooms. When it came to representing her story as part of this work, I began by trying to write her story for her. However, I felt I lost too much of her voice and I lost too much of the passion for her profession and for her students which came through in our conversations. Wherever an opportunity presented, I left her to tell her own story while, at other times, I consulted field texts, transcripts of our conversations, my memories, and Roxanne herself to preserve her meaning.

Roxanne's Year 1 and a 3 Year Plan

Roxanne moved within our school district from a teaching position at one school to a position as department head at her present school. As department head, she was a member of the Faculty Council and a member of the Instructional Leadership Team (ILT). Faculty council assisted the principal on operational matters and ILT assisted the principal with instructional matters and was involved in instructional leadership within our school.

The first faculty council meeting of the school year guided Roxanne to her starting point with Assessment for Learning. She recalled:

> I had an opportunity to look at a break down of the previous year's marks. I found out where kids were being successful and where they were being unsuccessful. One of the things that immediately caught my eye was the success rate in our English 10-2 program[16] … only 45% of the kids in that program were passing … It was obvious where my attention should be focused. Round about the same time our principal started talking to us about Assessment for Learning, introducing us to what it might mean in the classroom and what it might mean to us as school leaders. (Personal communication, June, 2007)

For Roxanne, her first year of Assessment for Learning was occupied with the introduction of the No Zeroes and Second Chances strategies to the English department.

She guided the English department team through a successful first year. Completion rates in English 10-2 climbed from 45% to 78%. However, she felt the improvements were not sustainable. The main reason was time. Helping English 10-2 students achieve success was time-consuming. To encourage students to catch up on missed work, she hounded them in classrooms, sought them out at lunch times, and phoned them at home. She gave them opportunities to make up missed assignments or improve poor marks at lunch-time and during after-school tutorials. She felt it was her responsibility to help English 10-2 kids. For the next school year, the burden of monitoring and chasing students would fall on other teachers in the English department. Roxanne didn't think that they would have the time available to monitor the kids as she had. She knew that the pace set in the first year could not be maintained during the second year.

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[16] As students leave junior high school and enter senior high school, they are streamed. In English they either go to English 10-1 or English 10-2. English 10-1 leads to English 20-1 and English 30-1. 30-1 is generally required for entrance into post-secondary programs. It is sometimes difficult for students to make the leap from the -2 stream to the -1 stream. One of the frustrations some students face results from a strong technical ability that sees them excel in mathematics and science (particularly chemistry and physics) and a difficulty in their second language, English.

At the end of the first year, Roxanne decided to bring in a district consultant. Together with the teachers in the English department, Roxanne and the consultant[17] developed a 3-year plan. Roxanne hoped the plan would produce sustainable changes and sustainable improvements:

> Our ultimate goal was to improve our kids' learning by implementing Assessment for Learning strategies. But we felt there were three outstanding issues. All three issues were to do with where we were. Firstly, we needed to know where we were, as practitioners, in relation to other teachers, not just teachers in our district but other teachers outside the district. In other words, we needed to find out what other teachers, in person and in print, could tell us about best practices in relation to implementation of Assessment for Learning. Secondly, we needed to find out where our kids were in their learning. Although not ideal measures, we looked at numerical achievement results such as class averages, percent passes, percent honours, and so on. Finally, we looked at our own practices—our personal

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[17] From this point I have used the term "the group" to refer to Roxanne, the consultant and the teachers in the English department.

> classroom practices and those of our colleagues within the department. (Personal communication, June, 2007)

The group put together some information on student achievement for the English department. Roxanne described it as "baseline data that enabled us to gain some appreciation of improvements over the future months" (Personal communication, June, 2007). They identified what they thought would guide them in their search for best practices as they continued to implement Assessment for Learning. They focused on the *Black Box* reports (Black and William, 1998; Black et al., 2004), the works produced by the Alberta Assessment Consortium (1999, 2000, 2001, 2005) and *Making Classroom Assessment Work* (Davies, 2000). Their goals were to find some practical ways to introduce Assessment for Learning into their practices and engage in conversations about those practices.

There were some surprises in store for the group as they looked at their practices. In Roxanne's words:

> We used the mandated curriculum to identify, for our Grade 10 kids, what were the most important things they had to learn. We compared our findings to what we were actually teaching and, in some cases, we were surprised at what we found. Firstly, as a department, we were surprisingly inconsistent in what we emphasized and what we pushed into the background. Secondly, and closely associated with the first point, we were quite erratic in what we considered to be essential, required and not essential. (Personal communication, June, 2007)

The group examined the mandated curriculum with the goal of identifying "needs," "wants," and "not essentials." The "needs" were defined as the essential outcomes that must be covered so that kids can go on and be successful at the next level. "Wants" were outcomes that, although not essential, they felt should be covered depending upon available time. "Not essentials" they defined as nice to do but not necessary—they were not going to significantly impact kids' success or their ability to be good students of English. The group followed suggestions made by Ruth Sutton at the Edmonton Teachers' Conference in 2005. She talked extensively about content versus coverage. I remember that she posed the question "What is the point of including 100% of the content of a mandated curriculum and being only 50% effective in covering that content?" The group discovered some differences of opinion as to what "needs," "wants," and "not essentials" were. Negotiations followed. Some of the negotiating resulted from teacher preferences—I think we all have favourite parts of a course that we like teaching and from which we get the most pleasure or satisfaction as students learn. Eventually the negotiations led to agreement with a few compromises along the way.

Negotiations continued as the group asked questions about assessment practices. Roxanne indicated:

> Everybody was doing their own thing. 40% of my kids' marks were dedicated to essays, 30% to reading, 20% here, and 10% there. Other teachers had 50% for oral presentations, 10% for essays, 10% for reading and 30% for pop quizzes. We needed to be more aligned with curriculum and with each other. Our goal was to ensure that a kid who achieved an 80% in my English 10-2 class would achieve

> an 80% in someone else's English 10-2 class. We knew that we would never be perfectly consistent but we needed to be much better. We decided what we would assess our kids on. This went right back to the curriculum. But we found (realized) that it was most important to let our kids know what they would be assessed on. It seems obvious, elementary and straightforward but it was something that wasn't being done as effectively or as clearly as it should. (Personal communication, June, 2007)

After that, the group had another look at the No Zeroes strategy. It was thought to be a good strategy, but there were tensions—I revisit those tensions and the No Zeroes strategy in the next chapter.

Roxanne termed what the group had done to this point "groundwork." She suggested that it wasn't Assessment for Learning but the foundation for it. After the groundwork, the group began trying new assessment practices. No Hands was one of the most popular and effective. Roxanne used another strategy that she called One to Ten. By using this strategy, she involved and empowered students and allowed them to judge her teaching as she taught. It was a strategy that encouraged students to negotiate. It demonstrated a commitment by Roxanne to students. If students were willing to be involved; she was willing to accept their involvement. And, if they negotiated, they were involved:

> In the One to Ten strategy, "one" means that our kids don't understand. They are not getting any of what I am teaching; I am not teaching them effectively. "Ten"

> means that our kids understand all that I am teaching and I need to stop teaching. If I carry on I am in danger of confusing them. I ask the kids where they are on this scale. I ask them to show me with fingers or on a piece of paper. I know immediately if a kid got it and we can move on. I know if I have to spend more time on a concept. I know if I can move on but I may have to revisit at some later date. (Personal communication, June, 2007)

I asked Roxanne if she thought the kids were honest in giving their feedback. Did they feel self-conscious in saying they didn't understand in front of their classmates? She indicated that she phrased the 1 to 10 scale to put the onus on her. She used phrases like "You are not getting any of what I am teaching," "I am not teaching you properly," "I need to stop teaching," and "I am in danger of confusing you." She added:

> If I suspect any kids are too self-conscious to show me with fingers, I ask them to write their number on a piece of paper and I quickly go around class to check. One to Ten and No Hands allowed me to get immediate feedback and gauge the level of learning that was taking place. (Personal communication, June, 2007).

Roxanne's Year 2 and Year 3

Roxanne summed up her first 2 years at her new school by saying "That was most of what we did in the first 2 years—No Zeroes, Second Chances, curriculum, setting up assessment, trying different techniques, reporting and discussing what we found, and refining our practice" (Personal communication, June, 2007). She reported that one

English teacher really struggled to try and make sense of Assessment for Learning in her classroom. The teacher was more traditional in her teaching outlook, and Roxanne believed Assessment for Learning was taking her out of her comfort zone. But the teacher persevered throughout the year. Roxanne monitored the situation. She also asked her colleagues in the English department to give the teacher plenty of encouragement. Roxanne addressed the situation more directly throughout her second year. She worked with the teacher and negotiated a deeper understanding of assessment and how it related to the teacher's classroom, initially by talking to her about her marks. As negotiations continued, Roxanne helped the teacher create a classroom space where constructive teacher-student negotiations could occur. Roxanne recalled,

> She seemed to form an understanding of what was happening in her classroom through her marks. I don't mean that she saw marks and didn't see kids, but she formed an understanding of her kids' achievements through their marks. As we went through her kids' marks, we noted where improvements had been made, where there was still room for improvement, where we needed to make better connections with kids, and where we could try some of the different techniques from the Assessment for Learning literature. By the end of that second year, she had adapted some Assessment for Learning strategies for use in her classroom. A few things had changed and others were still changing in her classroom. Marks were improving. More connections were being made and others were improving. That was a win. (Personal communication, June, 2007)

As Roxanne's second year continued she encouraged teachers in the English department to adapt other Assessment for Learning strategies to their classrooms and to support each others' efforts in doing so. Course completions improved, not as significantly as they did during the first year, but improved nonetheless. The year after, Roxanne decided to be a bit more ambitious. Her goal was to increase the number of kids achieving A and B Grades. She didn't choose a big increase, just 5%. To support the work, she chose four practical and straightforward pillars based on the work and findings in the *Black Box* articles (Black & William, 1998; Black et al., 2004). They were:

(1) Peer and self assessment;
(2) Using exams to generate questions and generate new learning;
(3) General questioning; and
(4) Feedback.

After the successes of the first 2 years, Roxanne was disappointed with the outcomes of the latest attempts at improvement:

> We worked in teams of two with each team choosing one of the pillars. We decided that each team would work on one of the pillars and that each team would report to the larger group on a frequent basis. The goals of the feedback were to inform the larger group and to invite comments, suggestions, and support for what we needed to do next. I would love to report that we were successful and that we improved kids' marks but … One of my colleagues summarized our efforts: "We

kinda crashed and burned." We began the school year with classes of 35, 37, 38 kids; teachers were coming and going because of various illnesses, short term and long term; and, of course, new teachers were joining the department for varying lengths of time. It was not something we could put our attention to, we were too focused on surviving day to day in the classroom, and we could not afford the time to contend with a formal project such as the one we devised. People were still doing Assessment for Learning in the classroom. I know that because I was going into classrooms, people were talking to me about it: "I am trying this technique—'good better, best'" and "I am doing some peer assessment" and "I am doing some peer editing—look at these paragraphs."

My group of two was supposed to look at questioning. I did some work on questioning with one of my classes and it was really successful. But, overall, it was disappointing for me personally and for other people in the department.

Several of us were keen to implement the project; we wanted it to be successful and we wanted our kids to experience greater success. But the shear hard work involved in teaching and the commitment we had to make because of the number of students in our classes and the unplanned changes in department personnel made it impossible. So, after a while, I called a halt and suggested that we leave our project alone and further suggested that we simply be active in doing Assessment for Learning in our classrooms.

A number of benefits came from our efforts. One of the major benefits resulted from the in-services we attended. They were provided by the district and proved to be a forum for exchanging ideas with teachers from other schools.

> That's how I knew people were developing their ideas around the Assessment for Learning strategies we had discussed at school. After attending the in-service sessions, our teachers would come to me and say "I am already doing this … I have tried this … I have worked on this but found a better way to use this particular strategy." The feedback I received from the collaborative work undertaken at the in-services showed that, at least in our department, we were using Assessment for Learning and, I believe, using it effectively. But, whether the number of As and Bs went up, I have no idea. (Personal communication, June, 2007)

Planning for Next Year

At the end of Roxanne's third year at the school, teachers in the English department once again gathered and looked forward to the following year when a new batch of English 10-2 kids would join the school.

Roxanne and her colleagues decided to try a different direction. They knew their kids were struggling with reading comprehension. That is what they decided to focus on, using Assessment for Learning as the support mechanism. They again planned to use a district consultant to help them to set goals and to decide how to measure their effectiveness in achieving those goals.

I asked Roxanne why the English department had decided to shift the emphasis from the English 10-2 students. She felt that the department, as a whole, had learned so much by focusing on completion rates for English 10-2, 20-2 and 30-2 students. What the department's teachers learned could be used in future years, not just for the 10-2, 20-2, and 30-2 students but for all the other students. The department's results showed a remarkable improvement. Roxanne and the other teachers in the department believed it was time to widen their focus and use what they had learned for the benefit of all of their students.

Tensions

During our conversations, Roxanne alluded to some tensions that had developed during the 3-year period. She spoke of the difficulties one teacher experienced but focused mainly on the events of the 3-year program. I asked Roxanne about the tensions that had crept into the English Department, when the tensions had developed and how she handled them.

Tensions were minimal during her first year. Roxanne took most of the pressure away from the teachers in her department. She took on most of the extra work herself. She supervised the lunchtime tutorials and catch-up periods, hounded the kids who needed it, and compiled and marked the extra assignments:

> I did that on purpose for several reasons. Firstly, I was new in my position as department head and I needed to build some trust and earn some respect with that group. I wanted to show that I was willing to put in the hard work, that I wasn't going to ask anyone to do anything that I wouldn't (or couldn't) do. I wanted to demonstrate my belief that, as teachers in the English department, we had to show the will to be there for our students and we had to show that we were there to support all our students, not just the ones who were academically more capable.

> My colleagues were really supportive. And, it has crossed my mind many times, their support should not have been surprising to anyone. I took a lot of work off their plates. Our kids' work ethic improved. Our departmental marks improved. I was committed to the program, committed to the kids and I had shown that commitment through my willingness to take on extra responsibilities and duties. However, the tensions started coming in year two. (Personal communication, June, 2007)

There were expectations for department heads to push incorporation of Assessment for Learning into teachers' practices. It was a subtle pressure that was exerted on department heads but it was pressure nonetheless. As Roxanne encouraged teachers in the English Department to use Assessment for Learning practices, she met occasional resistance, particularly with the No Zeroes strategy. On each occasion, she responded firmly:

> No, you have to connect with the kids; you need to try some different assessment techniques that will do more than help kids scrape through. It's not a matter of just pushing our kids across the line, it matters how we get our kids across the line. (Personal communication, June, 2007)

When the tensions arose, Roxanne dealt with the difficulties using an interesting strategy:

My intent is to create sufficient conflict in a person, in a situation, or in a relationship that there is an impetus to create change. Obviously, I am careful not to create the kind of conflict or the degree of conflict that causes people to retreat or to become so defensive or angry that they shut down completely.

Michael Fullan (1997, 1999 and 2001) writes about creating crises and using the resulting conflict to initiate beneficial changes. Sometimes the crises have to be created and sometimes they already exist. In this case, I didn't have to create the crisis. We had a 55% failure rate—that was a crisis. And the crisis had to compel the change. So I needed to ensure that everyone had a sense of the crisis and that everyone felt a part of it.

There were some feelings of defensiveness which were understandable, marks were low and completion rates were low. I had to help my colleagues distance themselves from the "this is the way I have always done it" attitude. I began by asking the difficult questions: "Why are your marks where they are? How are you going to get kids across the finish line? What are you willing to do? Are you willing to try something new? What do you need me to do and what do you need our administration to do to help you achieve your goals?" Then I visited classrooms and I monitored improvements in marks and in classroom environments. I continued to meet with teachers and, when necessary, continued to ask the difficult questions. I met regularly with our administration to make sure that, during classroom visits, we were looking for the same things and, after classroom visits, we were all sending the same message to our teachers. (Personal communication, June, 2007)

Roxanne indicated that she created tension for herself. As the 10-2s became 20-2s, chasing students and making sure they completed assignments fell to the teachers. Some teachers had more success than others. Roxanne believed she should have monitored the situation more closely but she didn't have time. She suggested that she let herself down by not monitoring the situation closely and that she would resolve the problem the following year. Additionally, she made a commitment to address the root cause of much of the tension, attendance: "I believe that our department has to come up with some strategies to get our kids in class. If they are not in class, we cannot teach, they cannot learn, they cannot complete work, and we cannot assess" (Personal communication, June, 2007).

Another source of tension for Roxanne and her department were the PD sessions. "Or was it the compulsory nature of our department's attendance at the PD sessions? Or was it our success in implementing Assessment for Learning that caused the tension?" Roxanne asked (Personal communication, June, 2007). I take a closer look at PD in the next chapter.

Support from Administration … Support from Our Kids

Roxanne believed that much of the credit for the successful implementation of Assessment for Learning was due to administration's support and encouragement. She told me:

> They have promoted a risk-free environment. Suggestions from staff have elicited positive responses, encouragement and a "go and try it" attitude. Research articles

> have been passed on without expectation but with a suggestion to read and to use what is found to be useful. If a particular PD session looks interesting we are encouraged to attend (finances permitting). (Personal communication, June, 2007)

Their attitude helped people take to Assessment for Learning because the measures were not forced and a safety net was created that allowed staff to try things and then modify, try again, and modify again. Teachers were allowed and encouraged to choose what matched teaching styles to kids. Roxanne described the most important support mechanism:

> I think what our admin. has not done has proven to be very effective. They have not checked up, at least not in obvious ways. I know of some initiatives where teachers have been told "You will do this in your classroom and we will check that you are doing it." If you give teachers the respect that they are due as professionals, they will make good choices and they will do a good job. (Personal communication, June, 2007)

According to Roxanne, students bought in to the concepts of summative and formative assessment and the terminology of Assessment for Learning so quickly and enthusiastically that they made the whole thing relatively easy. In the English department, teachers took time within their classes and just talked to kids about the school's Instructional Focus and specifically about Assessment for Learning and what it meant. The message was very similar to the introductory PD sessions that the school's teachers attended. Roxanne sent home letters to parents explaining Assessment for Learning, the differences between summative and formative assessments, and the changes they were likely to see on report cards and marks' reports. She indicated that there would be fewer assignments that would be formally graded. Ultimately, students did the same amount of work, but in place of grades, teachers commented on different aspects of the work and suggested ways to improve.

She expected this to be a huge issue. She expected resistance from students, along the lines of "What do you mean we are not doing this for marks? Why would I want to do that?" But students accepted and actually enjoyed the different feedback. Looking back on the explanations and promotion of Assessment for Learning, Roxanne was not surprised that it was accepted so quickly and easily by students:

> You get to practice assignments. Your teachers will help you by giving feedback, not marks. If you don't do very well on the first one, we will look at what needs to be improved and we will improve. Marks can't count because we will not be marking, just commenting on the work you have done. When you have mastered what we are teaching and learning, the marks will count. For instance when we see that you have achieved that mastery, we will count the next assignment for marks. (Personal communication, June, 2007)

Her students were provided with a safety net, and mistakes provided opportunities to learn. Students realized they were not going to be unfairly penalized by being tested on something they had not had the time to learn. It gave them the security they needed to take risks and try new things without the danger of being immediately assessed and told that their experiment had not worked. The more academically minded kids loved what was happening, particularly the kids in the International Baccalaureate program. They were incredibly enthusiastic at being given the chance to be creative. They thrived as they were given opportunities to discuss their creations, including how well they had worked and what they needed to do to improve them. As they practiced and tried different things, they gained a greater understanding of their own learning and how they could improve. Roxanne recalled an experiment that, initially, did not work:

> I remember doing a visual response exercise. The kids get a picture and they have to write what the picture means to them. I came back after an hour and the responses were rather awful. But I told the kids we were not going to count the awful one. We went over it, discovered why it was awful, we practiced and, after lots of practicing, we did another one. That one counted. The kids loved it. There was a great emotional stake in it. A large part of the overall success in winning the kids over was in the messaging. I didn't promote it (Assessment for Learning) by telling the kids "you will keep on doing it until you get it right." I told them "You will try. Together we will look at what you did and together we will look for ways to improve. You will try again. When you are comfortable with what you are doing, we will try again and this time it will be for marks." (Personal communication, June, 2007)

A few students found the Comments Only part of Assessment for Learning frustrating. After Roxanne handed back their first piece of Comments Only work, she noticed that some of her students searched frantically for the mark. They asked "Where's my mark?" Roxanne told them:

> There is no mark, just comments which tell you what you did right, what you did wrong and what you need to do to improve. This is what formative assessment is all about. It would be unfair of me to mark your work now. You have not had a chance to practice and really develop your skills. So if I marked your work now, you may get a 5 out of 10. But you will now improve, after the improvement you will get a higher mark. (Personal communication, June, 2007)

Roxanne regarded it as:

> Improvement through teaching, coaching and experience. Students' first efforts result in disappointment because their reward, a mark, is not there. They put the effort in and they don't get a mark, they initially feel disappointed. So we have to emphasize the message "here's a chance to practice so you get really good then we will assess and mark later and the marks will count." I have found that the disappointment doesn't entirely disappear until we have been through the process once. After going through the process, my kids know what to expect. (Personal communication, June, 2007)

Quality Feedback

Roxanne suggested that the real key to success was quality feedback. When she said this I thought "Yes, I think we have all written 'good essay' or 'good job' or 'well done.'" Roxanne believed those comments needed a great deal of improvement. Her quality feedback consisted of specific comments on three things, for instance "You write good thesis statements because …," or "Your work was well organized because you planned by …," or "Syntax and grammar are done well because …." That way, her students were able to discover what worked and why it worked and they didn't need to make wholesale changes. She added:

> I know they coach each other, so I did the math. If I comment on three things that are good on each paper, there is the potential for over a hundred examples of good work being shared among my students. (Personal communication, June, 2007)

Then she did three fix-ups. Again, the comments were very specific and very clear, for instance: "Before your next essay I want you to be clear about the differences between their, there and they're. I want you to use these three words appropriately in your next essay" (Personal communication, June, 2007). Roxanne found that when there were no marks, students read the feedback and did what the feedback suggested. They used the feedback to generate their own inquiry. That is, they engaged in discussion among themselves or they asked their teacher. Eventually, they began self-assessing before handing in and began to self-correct and self-improve. Additionally, Roxanne always encouraged her students to share comments they received with their peers:

> I do believe that we always benefit from a second opinion so I would never suggest to my kids that they do their work in complete isolation. Coaching each other leads to self-correction and self-improvement. They will become more adept at helping themselves improve and helping others improve. (Personal communication, June, 2007)

As Roxanne described what and how she marked, I imagined the amount of marking and compared it to the relatively paltry amount of marking I did for science. I asked her about the marking burden and duplicated an earlier question: "Are we asking our English teachers to do too much?" She smiled and said that the teachers in her department were similarly horrified at the thought of the extra marking. When she presented our Assessment for Learning story at PD sessions for other schools and other school districts, the majority of questions revolved around concerns about extra marking. In response to the concerns she recalled the thought processes she went through:

> I realized that the formative comments were essential. Improvements are a result of our coaching. Good coaching stems from good communication. By limiting our comments to "well done" or "good essay" or "needs improvement," how do they improve? Do we rely on chance? I came to the conclusion that formative comments are the essence of marking. I do realize that marking for English teachers is a heavy burden. However, I found that using Assessment for Learning might actually reduce the amount of marking I have to do. In coming to this realization I am thankful to the work done by the teachers in the KMOFAP

> program reported in *Working Inside the Black Box* (Black et al., 2004). The message from the teachers and researchers was "The days are gone when you make every little correction in red ink or pencil; kids don't look at that, they go straight to the mark; and if there is no mark, they limit their observation to two, three or four corrections or red ink marks." I have stopped marking every little error. I am not oblivious to the little errors and I do not ignore them. If the same little error has been made several times, I will make a general comment and that is one of the issues that requires work in preparation for the next essay. It's much quicker to focus on three little things that my kids have to work on for their next paper. (Personal communication, June, 2007)

Alternatively, Roxanne used Traffic Lights "as stepping stones to self-editing and peer-editing exercises" (Personal communication, June, 2007). The first two or three pieces of work were time consuming. After reading through an essay and applying Traffic Lights, she engaged her kids in discussions about their work. She pointed out what was good about the sections marked green. She picked out several red marks and discussed what needed changing and why. She addressed the sections marked yellow and suggested reasons why there might be an issue. After dealing with the first two or three pieces of work in this manner, she relied on her students to decipher the meanings of the traffic lights (she encouraged them to seek her help if they were at a loss). She suggested "this is quicker because I am not trying to check everything and there are time savings when we assess summatively, when we mark summatively, there are no comments on the paper, only a number" (Personal communication, June, 2007).

Roxanne's Summary

Roxanne summarized her part of this chapter:

> We found that the essence of Assessment for Learning was to work collaboratively, with our students, on the three questions: Where Are We? Where Are We Going? How Do We Get There? We knew where our students were. We taught them last year, or one of our colleagues did. We had marks, we consulted with colleagues and most importantly, we engaged our students in discussions about their learning. We knew where we were going; our curriculum documents told us what we needed to know. In order for us to engage in meaningful collaboration with our students, we had to share the mandated curriculum knowledge. Then, students and teachers had the opportunity to build skills and knowledge that would take students on to the next course, or through their diploma exam and on to post-secondary. When we addressed How do we get there, the "we" had to involve our students. Our colleagues were an important part of it, but without involvement and buy-in from students then our success and their success would be limited. (Personal communication, June, 2007)

Monique's Story

I met with Monique several times as we engaged in our research conversations. She felt she had forgotten so much of her story of Assessment for Learning, how it was introduced to her classroom and the impacts it had on teachers and students. After I listened to her story and, particularly, as I transcribed it I found it remarkable that she had remembered so much in such great detail. I found Monique's caring for students and colleagues and her passion for teaching came through in her words. As with Roxanne, wherever it was possible I left her to tell her own story.

At the time of our research conversations, Monique was in her 6th year at the school, her 6th year of teaching and she was experiencing her 3rd collection of administrators. In years 1 to 3 she taught a variety of science courses. More recently, she concentrated on her specialty, biology.

Monique admitted that she struggled with Assessment for Learning during the early stages of implementation. Specifically, she found the No Zeroes and Second Chances[18] strategies difficult. Monique's goal was always to push her students to take more responsibility for their own learning and she often found that No Zeroes and Second Chances conflicted with her goal.

Monique indicated that she did an about face with respect to PD. She recalled: "Previous initiatives being rammed down our throats … we weren't asked for input … we were told what we were going to do … told what was best for us … best for our classrooms … best for our kids" (Personal communication, June, 2007). Her views on PD changed as the landscape changed:

> We were given the freedom to develop our own PD … we are asked for input … treated like the professionals we are … we are successful … our admin. is successful … our kids are successful … we feel we are involved … PD feels as though it is a part of my teaching. (Personal communication, June, 2007)

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[18] Although I suggested that "no zeroes" and "second chances" are two separate strategies, they are so closely associated that we can regard them as being part of one strategy.

However, she maintained her belief that there were improvements to be made. Firstly, she recalled attending several valuable PD activities but, at the same time, she was not happy about the time she spent away from her kids and her classroom. Not only did she lose time with her kids, but she (and her students) lost the flow of their lessons. Secondly, Monique suggested that PD activities involving collaboration with colleagues had been essential for her as she introduced Assessment for Learning. She was adamant that there was a need for more time for professional dialogue among teachers. She was convinced that there was little recognition of the value of such professional dialogue, and even if there was recognition there was insufficient action. It frustrated her to realize that she and her colleagues could do an even better job if time was allocated for collaboration among colleagues.

The majority of the time Monique and I spent engaged in our research conversations, we discussed No Zeroes, Second Chances, and PD. I found these were threads common to all our stories. They told of the impact of the strategies we named No Zeroes and Second Chances and the importance of PD. I gathered those threads and left the telling of that part of our stories to the next chapter.

Classroom Practice

Regardless of the initial difficulties, Monique persevered with Assessment for Learning and it eventually clicked for her. She credited her colleagues and their willingness to collaborate for her successes. She observed her colleagues in their classrooms and engaged in professional dialogue outside the classroom. She listened to their comments during our Assessment for Learning PD sessions, "Well, I do that anyway," or "I do most of what is being suggested; I only have to add …." She observed one of her colleagues, a veteran and well respected educator. Her colleague used Assessment for Learning practices but did not name them as such. Seeing and hearing the affirmations from her colleagues gave the seal of approval that Monique required to introduce Assessment for Learning to her classroom.

She introduced her students to Assessment for Learning via a practice she used prior to implementation of Assessment for Learning. She modified the practice in order to involve her students in peer and self-assessment, thereby helping them develop the skills necessary to become more responsible for their own learning. She believed the practice resulted in significant gains on diploma exams for her students. Monique shared the practice with colleagues in science and with other teachers around the school. Her colleagues found similar success using the practice. I find the manner of the sharing to be worthy of note. Monique did not share the practice at any staff meeting or PD gathering. It was a result of the professional dialogue that took place before school, at recess, over lunch, or after school. Together with her colleagues, she placed great emphasis and reliance on this professional dialogue.

Monique described what she did, how she modified the practice and how she presented it to her students:

> What I used to do was photocopy old diploma exams and hand them to my students. They used to do them on their own and sometimes we would discuss the questions or go over them as a class. What I do now is photocopy, cut out individual questions and hand one to each student. They do the questions

> independently and then partner up, read each others' questions and explain how they arrived at their answers. I had to model the process because some students didn't take it seriously and some regarded it as an opportunity to socialize.
>
> I think some students found the transition to Assessment for Learning difficult. For instance, we are promoting self-directed learning and we are trying to help our kids take some responsibility for their own learning. In order to do that we must give our kids the freedom to practice some independence. As a result there is more freedom in my classroom. The ones who are keen on learning try their best and use the time appropriately but others can become disruptive. So, I clamp down. Simply modeling appropriate behavior and setting expectations was insufficient. I had to be more forceful than I really wanted to be. I find that my Biology 20 and Biology 30 classes tend to be populated with students who find the other sciences, chemistry and physics, difficult. The comment has been made that biology may not be as academic as the equivalent age level physics and chemistry classes. I am not sure what the reason is. Is there a general perception among students, at least at our school, that biology is the easiest of the three sciences? Possibly. (Personal communication, June, 2007)

I asked Monique what the initial difficulties were. She explained that her students resisted. The reason for the resistance, she believed, was the discomfort her students experienced as they went through the transition from one practice to another. Before modifying and introducing this new practice, there was little accountability. Students did not have to do the questions. All they had to do was read them and say, "I can do it" or even convince themselves that they could do it. As the new practice was introduced, Monique held them accountable, and they resisted the accountability. She regarded the practice as a stepping stone to more effective peer and self-assessment.

The nature of the resistance was two-fold. When it came to explaining answers to each other, some students sat and socialized. Others preferred to ask Monique to check their answers, the overly dependent group. How did she deal with the resistance? She clamped down on the ones who socialized. She monitored them closely, sat in their small groups, and pushed their participation and collaboration. She found that some of the socializers joined the other group of resistors, the overly dependent group. I wondered if Monique's students were practicing resistance or practicing avoidance. How did she deal with the overly dependent group? She explained:

> I read their answers. Depending who the students were and what their answers were like, I would offer some guidance or I would direct them to their texts or other resources. Most often I would direct them to another group of students who would be of assistance. The other group modeled the behavior I wanted. Again, I had to monitor, push and pull and, in the end, they got it. It was a long, painful process with some kids. I think the strategy has a longer lasting effect on the kids than just helping them through Biology 30. They take it to post-secondary. That's what I like most about Assessment for Learning. (Personal communication, June, 2007)

Somewhere along the way another problem developed. A core group of students began taking an easy way out. They completed as much of a question as they could, usually the recall part of the question, and then stopped and expected the remainder of the question (the application, synthesis, evaluation, or analysis) to be handed to them. Monique found that it was difficult "to drag them away from that way of thinking and behaving" (Personal communication, June, 2007). She eventually overcame the behavior by persistently modeling appropriate behavior or asking students to model appropriate behavior. Once again, she found she needed to be firm and push some of her students' involvement. I asked Monique what feedback she received from her students, what they thought about the strategy? She replied:

> Eventually, every student in class made positive comments on the learning that took place in these sessions. They told me that they really got to know the style of questions that were being asked on diploma exams. As they practiced, they read the question several times and explained not only their answers but also what the question was asking for. In explaining the question, they explained to each other how they were thinking about the question, they talked about their thought processes and why they were thinking that way. For instance, I overheard conversations where perspectives changed as the discussion continued. In one conversation a student was looking at a question from a very different perspective. He wasn't necessarily wrong but his view was not what the examiner was looking for. Another student, in explaining the correct way to answer the question, gained a much deeper understanding of the concepts involved. And it

> was good to see the light go on as the first student realized what the examiner was trying to get from him. (Personal communication, June, 2007)

As an added incentive for students to become serious about this work, Monique frequently added questions from the practice sessions to her students' tests and unit exams. She used the ones that required understanding rather than rote memorization. Her students caught on very quickly, she reported:

> Every semester, after the first unit exam, at least one student comments, "Hey that was the question we did last week in class." My reply is always something like "Yep, it pays to get serious about those questions, doesn't it?" So, in spite of my opposition to Second Chances, I guess, in a way, I am giving them second chances to get the questions correct. I am allowing them to practice specific questions and specific types of questions and I am giving them the opportunity to show how they can perform when answering those questions on the tests and exams. (Personal communication, June, 2007)

Three Years of Assessment for Learning

I asked Monique to summarize her three years of Assessment for learning:

> Looking at the three years of Assessment for Learning, the first year was good, we were learning a lot, working hard and our leadership was enthusiastic and supportive. Second year, the learning continued, we were working even harder;

> our administration's support continued. Third year, there was a perception creeping into our school that there wasn't the same enthusiasm from our leadership. I don't know whether there was less pressure or less push from district to carry on or there was simply too much going on and too much to do. We had some presentations by staff members and they were good presentations. But the presentations were just thrust upon us, no preamble. There was nothing that told us why this presentation might be useful. I remember a very good presentation from our second languages teachers. After the presentation I thought, "How can I use this in my bio classes?" Would I have benefited from collegial discussions with the second languages teachers? Yes. Would I have benefited from opportunities to take what I learned back to our science department and discuss it with colleagues there? Yes. Were we offered those opportunities? No. It seemed as though things were just being stuffed into a black box and we were expected to do magic with it. (Personal communication, June, 2007)

Puzzling

I listened to Roxanne's account of the introduction of Assessment for Learning and heard resonances with my story. She found students to be accepting and colleagues to be supportive. Introduction of Assessment for Learning caused Roxanne to examine and modify some existing teaching practices. She solved some of her puzzle of student involvement as she introduced several Assessment for Learning strategies into her classroom including No Zeroes, Second Chances, No Hands and One to Ten. She helped her colleagues in the English department to develop student involvement in their classrooms assisting them as they introduced similar strategies and supporting them when difficulties occurred.

As Roxanne told her story, I couldn't help but think of the work she and her colleagues in the English department were undertaking. The work was in addition to the PD to support the introduction of Assessment for Learning. I added to the puzzle as I wondered how Roxanne and her colleagues could maintain such a pace. How could they be expected to teach full time, introduce major changes to their curriculum making, and attend to the PD needed to support those changes? Eventually, Roxanne had to call a halt. It was frustrating for her and for her colleagues, but there was just too much work to do. I began to see the difficulties of nurturing and sustaining new stories of assessment on the school landscape.

Monique has a gift of seeing and pointing out difficulties. I do not believe her goal is to be difficult, it is to improve matters. She demonstrated her gift and added to the puzzle during research conversations and on several occasions as Assessment for Learning was introduced.

Monique admitted she was pleased with changes in delivery of PD in the school district and the opportunities to collaborate with colleagues. But she was concerned for students. During PD activities, both students and teachers were losing the flow of their lessons. My research puzzle deepened as I wondered how PD activities could be maintained alongside a regular teaching schedule.

Monique credited her colleagues and their willingness to collaborate for her successes as she introduced Assessment for Learning. In spite of the successes, Monique didn't believe there was sufficient time given for collaboration with colleagues. It was ironic that Monique was suggesting more PD time to collaborate with colleagues and less PD time because it interfered with the flow of lessons.

CHAPTER 9. CONVERSATIONS

Setting the Stage

It is evident, when reading through each of our narratives (Monique's, Roxanne's and mine), that two issues weave their way through Assessment for Learning. They are No Zeroes and PD. These two issues affect just about every aspect of Assessment for Learning. In this chapter, I pull the issues out of the narrative accounts and explore them further.

No Zeroes

No Zeroes was my introduction to our district's assessment initiative, *Using Assessment to Drive Our Teaching.* No Zeroes arrived at my school without an accompanying explanation as to why it arrived. It created tensions among teachers, administration, students, and parents and it widened the gap between our district's administration and our district's teachers. After we, the district's teachers, reached an understanding of the meaning and intent, No Zeroes became an integral part of Assessment for Learning. For many of us, it was the primary practical method by which we introduced Assessment for Learning into our classrooms and which we used to begin a new relationship with our experiences in the classroom. It was also a way of maintaining strong connections with students and with our experiences in the classroom. No Zeroes meant that we would not accept zero effort from students. In other words, students were compelled to expend effort and demonstrate what they learned and what we, their teachers, taught them. We were then able to assess students' learning through questioning, listening, and more formal assessments and to determine how well we taught and how well they learned. That led to planning next steps in students' learning. As we became more sophisticated practitioners, we involved students in the assessment—the questioning, listening, and formal assessments—and in the decisions regarding next steps.

Assessment for Learning was new to teachers and new to students. No Zeroes was a new strategy within the context of Assessment for Learning. Along with the new strategy came a new set of negotiations and a new set of tensions. In the past, our staff insisted that students complete and submit assignments and insisted that students became involved. They chased students who avoided work. However, the intensity of our insistence and in the way we hunted students who practiced avoidance was far greater after the introduction of Assessment for Learning. If students did not demonstrate their learning and if they were not involved, how could we assess learning and how could we determine the next steps? In other words, without No Zeroes there would be no Assessment for Learning.

Along with the insistence and hunting came resistance from some students. The resistance required a different negotiation strategy and produced different tensions in student-teacher relationships. The tensions in student-teacher relationships demanded discussions, collaboration, and negotiations between teachers and students, among our teachers and between teachers and administration. Those discussions, collaborations, and negotiations continued as tensions became dormant in one particular area of our school or in one part of our practice and erupted in another part.

Professional Development

The second issue that weaves its way through Assessment for Learning, and particularly this story of Assessment for Learning, is PD. Our teachers reached an initial understanding of the meaning and intent of No Zeroes through the district's PD. And the meaning and intent was more readily understood as the district made changes to the way PD was delivered, from a mostly traditional, hierarchical and centralized approach to a more collaborative, constructivist, and decentralized approach (Lambert, 1998). The new approach signaled our district's willingness to honour its teachers' knowledge and listen to their voices. We knew what PD we needed as we introduced Assessment for Learning. The district showed it was willing to listen. The new approach to PD, the willingness to listen, and the readiness to allow teacher colleagues the time and resources to collaborate contributed greatly to the success we had with Assessment for Learning. Had the more traditional approach to PD continued, I doubt whether we would have achieved the same degree of success. Some insight was provided as, towards the end of our third year of Assessment for Learning, when we seemed to waver and reverted to a more traditional, hierarchical, and centralized approach with predictable consequences.

A Play? A Dialogue? A Conversation?

As I began this section I wondered how I would illustrate the magnitude of the role No Zeroes and PD played in the lives of Roxanne, Monique and I. I wondered how I would honour the voices of my participants—their passion for their profession and their caring for their students and their colleagues. In one of our weekly meetings, my supervisor, Jean Clandinin, asked how I was going to pull common threads from my field texts and compose research texts. I remember that I responded with a number of indefinite wonderings and one specific objective: I wanted the voices of the participants to shine through. I did not want to lose any of the passion they showed for their profession and the care they showed for their students and fellow teachers. Jean suggested composing research texts in the form of a dialogue or play or conversation. "I have thought about that and I don't think it will work," was my abrupt response. After our meeting, as I drove home, parts of our conversation flashed through my mind with the regular frequency of car headlights travelling on the busy highway in the opposite direction:

A PLAY,
IT WON'T WORK.
SHOWS CARE FOR KIDS.
BUT NO, IT JUST WILL NOT WORK.

A PLAY,
A DIALOGUE.
THEY WON'T WORK.
THEY SHOW CARE FOR OUR KIDS,
THEY SHOW PASSION FOR TEACHING.
A PLAY, A DIALOGUE - NO, THEY JUST WON'T WORK

A PLAY,

A DIALOGUE,

A CONVERSATION.

NO, THEY WON'T WORK.

THEY SHOW CARE FOR OUR KIDS,

PASSION FOR TEACHING, CARE FOR OUR COLLEAGUES,

WE HEAR PARTICIPANT VOICES. BUT, NO THEY JUST WON'T WORK

A PLAY,

A DIALOGUE,

A CONVERSATION.

NO, THEY WILL NOT WORK

Then a small, dim light appeared:

Why?

A play

Is voices.

A play,

A dialogue.

Caring voices,

Passionate voices.

A play,

A dialogue,

A conversation.

Passionate voices,

Caring voices, teacher voices.

It

Can

Work

I held separate research conversations with Monique and Roxanne, and I transcribed each set of research conversations separately. In developing the dialogue, I gathered portions of our conversations where we discussed No Zeroes. I did the same for portions of our conversations where we discussed PD. I then began weaving the threads of the different research conversations together and produced two dialogues or two acts of a play. The first act concerned our work with No Zeroes and the second, our involvement with PD. Even before deciding upon a dialogue or a play, my goals for the finished product were to hear participants' voices, to be able to feel their passion for their profession, and to be able to experience their caring for their students. As I removed their words from the original context of a research conversation (in my field texts) and placed them in the dialogue (in my research text), I was careful not to lose Roxanne's and Monique's meanings and voices. I spent several days weaving the threads of each set of conversations into the two acts.

In preparation for our next meeting, Jean was ready, once again, to begin negotiations concerning the transition of my work from field text to research text. However, our meeting began with an acknowledgement and apology from me. I acknowledged that Jean listened when I said that I wanted participants' voices and their passion for teaching to shine through. By adopting her suggestion, my participants' voices came through. And the apology? It was necessary because I didn't listen, didn't hear, and initially dismissed Jean's suggestion. The bulk of our meeting was spent reading, correcting, and suggesting changes to the dialogue. Toward the end of our meeting Jean suggested that I make people aware of **my idea** of presenting my research text as a dialogue among the three participants (Monique, Roxanne and I). What a wonderful suggestion.

Act I: No Zeroes

A dialogue among three research participants, Monique, Roxanne and David developed by the author from field texts. The setting was many places. We frequently stole time between classes as we waited for our students. The beginning of a conversation in the hallway before class was interrupted as the bell signaled the start of our classes. The conversation continued during morning break, only to end temporarily as the bell sounded and classes began. The bell sounded the end of our morning session and the beginning of lunch time tutorials or hallway supervision. In order to continue our conversations, we accompanied each other on our tours around school during lunch time supervision. We grabbed a few moments to continue our conversation during afternoon recess and a few more to relax and reflect at the end of the school day.

David: Tell me where Assessment for Learning started for you, where it first appeared in your practice.

Monique: For me it started with the No Zeroes issue. The issue wasn't the real start of Assessment for Learning, but it caused so much controversy that any other starting point is left in the shade.

Roxanne: That's where it started for me too and for my department. The first thing I did when I came to the school was recommend a No Zeroes practice. From the start I tried to damp down some of the fires that I knew would be sparked. I messaged it as a Zero Alternative policy. Before, it seemed as though we were accepting our kids' apathy. If they didn't want to hand in their work or if they didn't want to expend effort, we gave them a zero and that was the end of the story. Under this new policy our kids had to work and submit their work. Using this Zero Alternative policy gave our kids a fighting chance. Quite often, it's not the kids' abilities that fail them, it's the math because of incomplete assignments. You put in so many zeroes, they are destined to fail, and they have no way of getting over that. You take the zeroes out of the equation, you get kids to do the work, and they are going to pass the course, especially at a 10-2 level. It is a non-academic stream, and I believe it is meant for everyone to pass.

Monique: I agreed with the underlying intent of the policy; it was good but the messaging was one of the two major problems. The other was (and still is) the additional work that teachers have to put in to make it work. And I also agree we are fighting apathy. It is a constant dilemma for me and many other teachers. The original messaging created some disturbance. David, you told me how the No Zeroes policy was thrust upon you and your colleagues at your previous school.

David: Yes, my first indication of the policy came from a parent who worked for the district. I gave her daughter a zero—my zeroes were used to keep track of students who needed to do some work or re-do some work—soon afterwards I received a call from mom who told me I wasn't allowed to give zeroes. Mom also called one of her friends, a district student achievement consultant. The friend called me, repeating what the parent had said. I was not happy and other teachers were not happy with the way the policy was moved into our schools from district office.

Monique: We eventually got over the messaging. But the extra work is still with us. I suggested two problems but I guess the math is the third one. But it's different. It can be a two-way problem. One of my students, Jessica, is a good example. Jessica was in my Biology 20 class. Towards the end of the semester, and the end of the course, I got rid of the zeroes from our marks program, as I was instructed to do.

Roxanne: You were told to get rid of the zeroes?

Monique: Directly instructed by our admin.

Roxanne: OK.

Monique: Jessica's mark was 85%. According to this mark, she was an honours student. I had a problem with this. If Jessica had 100% attendance and if she had handed in 100% of her work, she may have received a mark of 85% or even

90%. But she had missed so much. So I went against our admin.'s wishes and entered a zero for all the assignments, exams, and homework that she missed. Jessica's mark dropped to 40%—a failing grade. Most importantly, this grade reminded her that she had missed more than half the material.

David: And the consequences don't really become apparent until Jessica goes to Biology 30.

Monique: Exactly. With a mark of 85%, she qualified to go to Biology 30. That would have been a disaster for her. She was not ready for the higher level on two counts. She had not done the necessary preparation from a course material perspective. And, from the perspective of being a responsible learner, she was not ready.

David: What did you do?

Monique: What I did was enter zeroes and gave her a copy of her marks report. She spent the last few weeks of the semester catching up. I spent the last few weeks helping her to catch up. She passed the course. Her mark qualified her for Biology 30. After the final exam, Jessica came to me and said, "I am glad you entered the zeroes. The 40% made me realize how much I had missed and what I needed to do to catch up. Without that, I would not have made the effort, I would not have caught up." It was a wake up call; she made the effort because I was realistic in sharing with her what she had done in class or, more to the point, what she had not done in class. Sometimes, the math behind the zeroes does not help our students. It has to be the math and the message: "You have a zero until you choose to do something about it, I will be chasing you until you do something about it." Jessica was just one student. There is always at least one Jessica in every course in every semester.

Roxanne: And the math does work both ways, depending on the context and the course and the student. What did I start with? No Zeroes. Who did I start with? I decided, at our first faculty council meeting, that my focus was going to be our 10-2 kids. I had an opportunity to look at a break down of the previous year's marks. I found out where kids were being successful and where they were being unsuccessful. One of the things that immediately caught my eye was the success rate in our English 10-2 program. Only 45% of the kids in that program were passing. I was shocked; I asked myself "How can you run a program and only have a 45% success rate?" It was obvious where my attention, as a new department head, should be focused. Round about the same time, during ILT meetings and Faculty Council sessions, we started hearing about Assessment for Learning.

David: I remember that. Is that when you first started working with Assessment for Learning?

Roxanne: No, not immediately. For the first few months of the school year, it was a matter of survival for me as a new Department Head, for teachers in my department, and for our students. It was like being in the trenches and someone was taking pot shots at us. The kids and teachers were being shot at by a program and a system that was not working for any of us. We all needed help. A month or so into the new school year, when things began to settle down and when I had figured out a strategy for dealing with our 10-2s, I met with my colleagues in the English department.

Monique: Why did you start with the 10-2s? Surely some of the more academic kids would have been easier to start with.

Roxanne: Here's the long version. It was my own personal preference and seeing the 10-2 results from the previous year made me even more determined to help them improve. I have always believed that if you lose kids in Grade 10, there is a good chance that you have lost them for good. Some, you may lose physically; others stay in school, but do they participate and do they belong? I don't think so. I believe Grade 10 is the turning point. If they can make it through Grade 10 and if they can experience some success in Grade 10, the kids and their teachers have a chance in Grade 11 and Grade 12.

David: And the anxiety caused by the transition from junior high school to high school doesn't help.

Roxanne: Right. It is such an adjustment coming to the big high school from (usually) a much smaller junior high. Courses are different, teachers are different, and expectations are different. Grade 10 and high school can be scary places. And, to add to that, our 10-2 kids, in order to enter that course, have likely failed at least one core course, they may have failed more than one core subject, some kids in 10-2 have failed all of their core subjects in Grade 9. Even if they didn't fail, they know that they have not done as well as some of their classmates in Grade 9. So, it is likely that they are not feeling too good about themselves or their learning when they enter 10-2. Consequently, they don't have a good relationship with school, they likely don't have a good relationship with teachers, and many of them come to high school believing they are failures. So my belief is that in 10-2, we can start to change that thinking around. We can start to make them think that they can achieve, that they can do school, that school is a good place, and it's a safe place.

David: But that's still not the why. Why the 10-2 kids?

Roxanne: This stems from my previous school, City High[19]. This is where I saw kids who dropped out in Grade 10. I remember hearing conversations like:

"Hi, I'm eighteen years old and I have one high school credit."

"What do you mean you have one credit?"

"Well, I did part of Grade 10 and I dropped out."

So I would see these kids three or four years after dropping out and they were trying to get a high school diploma, trying to be successful. If someone had been in their corner three years before, coaching them…. We so often concentrate on our more academic kids, and many teachers don't like teaching the 10-2s. I love the relationship that you can build with them. If you get them, they will die for you. With a typical academic kid, you can build a relationship, but there's something that is extra with the 10-2s. The majority of the academic kids already know something about being good independent learners. They don't need you like the at-risk kids do.

David: That is the why, now the how? How did you address the issue of failing 10-2s?

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[19] Our school district opened City High several years ago. It is where our over age students go to upgrade or to complete their high school diploma. Typically, students attending City High have encountered some prior educational difficulties. City High is a pseudonym.

Roxanne: I met with my new colleagues, shared our plight and attempted to get some buy-in. My comments were along the lines of:

> We have at-risk kids. The majority of them are failing. This can't continue. We have to do something about it. I will be the one who initially implements the measures based on a No Zeroes policy. If the measures don't work, it will fall on me. If they do work, we can look at implementing them across the board. All I need now is some support in terms of what we are going to do to begin with.

Monique: How did things go that first year?

Roxanne: I taught two 10-2 courses the first year and really focused on getting the kids to complete every single assignment. I didn't allow zeroes. That became the expectation, and I strongly suggested to my colleagues that our expectations should be consistent across the department. My message was:

> Don't allow any zeroes and, to support you, I will take any kids who aren't completing assignments, any kids who are coming in late or missing assignments, and they will come see me on Tuesday and Thursday lunch times. I will give them replacement assignments so that they can catch up and avoid those zeroes.[20]

For the first year that was our primary focus, we avoided zeroes and gave opportunities to complete assignments that our kids had missed. The good news was that we went from a 45% successful course completion rate to a 78% successful course completion rate by the end of the year in the English 10-2 program. At the end of the year we sat down and talked about our immediate success. We knew it was not sustainable; it was time consuming and it felt disorderly. We needed to sit down and figure out how we could create a sustainable program.

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[20] During the first year there was a total of four sections of English 10-2. Roxanne taught two of those sections and two other teachers each taught a section. When students failed to hand in assignments or didn't expend sufficient effort to obtain a pass, she expected those students to spend Tuesday and Thursday lunch times in her classroom. Obviously, many students were reluctant to sacrifice their lunch times and chose not to attend. When this happened, she tracked them on the school's master schedule and visited them in their classrooms to remind them of their obligations. Any further difficulties and she visited them in their classrooms just prior to Tuesday and Thursday lunch times and escorted them to her classroom. She experienced a great deal of success but the whole process was time-consuming.

Monique: Why do you suggest it was not sustainable? How much did it have to do with "time consuming" and how much did it have to do with "disorderly"?

Roxanne: It was not sustainable. The burden of chasing kids to complete assignments became the responsibility of my colleagues in the second year. Some teachers had more success than others. Does this mean that some of the teachers in the English Department were doing their jobs better than others? I don't think so; it's just a case of different individuals, different classes, and different groups of kids.

It's pretty much the same for you. You mentioned that you teach several Jessicas every semester. Don't you find the extra chasing, extra marking, and putting together alternative assignments and exams a heavy burden?

Monique: Yes, I do my fair share of chasing and it is a heavy burden. As I said before, I do not like the idea of giving my Jessicas an "omit" or an "NHI"—Not Handed In—I believe I am shirking my duties as a teacher if I do[21].

They don't know the impact of what they have missed unless I put zeroes in the marks program. Then they can see the result of their failure to hand in.

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[21] An "omit" or "NHI" in the marks program means that the assignment doesn't count. There are no consequences for refusing to do the assignment.

And they see that it is dragging their mark down and creating a huge gap in their learning. When my kids get a zero, I chase them to complete missed assignments; I chase them to catch up on class work they have missed. I give them interim report cards every month. I spend time in class. I ask them to check their monthly report cards. I point out to each of my students, one-on-one, where their zeroes are, what they have missed, what impact it has on their marks and on their learning. I spend some class time collaboratively planning how they can catch up. We talk about what they need to do to get where we are supposed to be going. I follow up in future classes. But, without the leverage and consequences of zeroes, it would be much more difficult.

And there's a limit to how much I'm prepared to chase my kids. I have to draw the line somewhere. Tell me, the two of you must have a limit. Where are your lines drawn?

At this point, lines came into our conversation. We talked about lines that limit—the lines students may approach but are not supposed to step over. We talked about what happens when they do step over those lines. We talked about finish lines—the lines students are supposed to step over. We talked about what happens when students approach those lines and cannot or will not step over. We talked about who defines the lines. We talked about the purpose of crossing the finish line—five credits for the student, five credits for school funding, students are eligible for the next level. Or are they? Roxanne asked the question: "Are students prepared for the next level?" Prior to our conversation I thought the lines *were clearly defined. After our conversation I was concerned that the lines were too arbitrarily drawn.*

David: Where do I draw the line? I think there are several lines. Each one has its own consequences.

Homework tasks are recorded on a wall chart. This is where the first line is drawn. Those who do not hand in are obliged to approach me during a tutorial period, ask for an alternative assignment, negotiate a due date, and accept a 20% late charge. If any of my students choose not to complete an alternative assignment, I talk to them in class or, if they avoid my class, I visit them in their other classes. At this point, it is only the odd student who steps over the second line. The consequences are two-fold. I phone home and discuss the non-compliance with parents. I also inform the assistant principal who is responsible for the student. Usually the kid complies and the work is done. The purpose is to show our students that they need to work, that we care and we will go to great lengths to show we care by doing as much as we possibly can to ensure their success.

Only rarely will a student refuse to comply—they have stepped over the third and final line.

Monique: There's so much time invested in these students, it's difficult to let go. Just think about the time involved in going through this process, in supervising tutorials as students complete late assignments, also administrator's time and parent's time. It is not wasted time but it is time we are not spending with our other students. If we have to go through this process on a regular basis, with a particular student, I usually recommend that we remove the student from the course. I know the process is effective and we rarely have to remove students from a class, not even perhaps one student per teacher per semester (less than one percent) but....

Roxanne: It shows that we are doing a good job, that we are getting kids to do their work, and that we are slowly but surely getting them to be more responsible for their own learning and their own work. But, what really concerns me is you chase and you chase and you chase kids because you want to get them across the finish line. But you are marking assignments that are four months old. Always, at the back of your mind is the question, "Has this kid legitimately completed the assignment or has he borrowed his friend's assignment?" The alternative is to make a new assignment, to create a new scoring rubric. Is any of this extra work fair to the teacher? I don't know that it is.

Monique: It's not fair for teachers. Do we continue to push and pull these kids all the way to the finish line and, when we are there, we have to push them over. It is tiring, should we be expected to exhaust our energies on the two or three and have little energy for the remainder of our students? Or do we say, "Here's an opportunity to fix up your marks, here's what you need to do, here are the alternative assignments, if you need help then come to me, if you want to improve then make an effort, if you don't then …"

I seek to strike a balance but it is tough. I think for the sake of the kids who are prepared to do their work and who do hand in on time and for the sake of the teacher who is putting this extra work in, we have to draw the line somewhere.

Roxanne: As a department, we have visited and revisited the No Zeroes policy several times. Overall, we think it is a good policy and we maintain the policy, but there are tensions. Just as Monique has pointed out, the lines are sources of the tensions. They are tensions caused by a small number of kids who you track for two months. Your goal is to get an assignment, some evidence that the kid has or has not learned something. As a result of that evidence, we can act, we can help. But the frustration builds as you spend too much time on one kid at the expense of others who have already handed in their work. You reach a point where you have to record a mark. Having spent time and effort hunting, all there is to show is a zero. If you don't enter a mark, you are inflating their marks without justification. At some point a zero has to go in. In David's terms, the kid has stepped over the third and final line.

I asked my colleagues:

> What are the options before we enter a zero? Can we do a make up day? Can they come in at lunch? Can we find an alternative assignment? Can we find pathways to success? Can we find roadblocks against failure? How can we communicate and instill responsibility and accountability?

David: I have heard this so many times. The dilemma: Do we draw the line? Do we give our students another chance? It is a dilemma which is difficult to resolve, a teacher's time is a limited resource. I have been asked the question: Do I spend 80% of my time dealing with—not even teaching—20% of my students and 20% of my time teaching 80% of my students? Although that may be an exaggeration one way or another but the concern is clear from the question and I don't really know how to respond satisfactorily.

Then this dilemma breeds other dilemmas and other questions. You can imagine a teacher asking: "I did spend 80% of my time dealing with 20% of my students. How am I going to help the 80% to catch up?" Or: "All my students deserve a fair share of my time, low achievers, high achievers and those in the middle."

Monique: It is a major dilemma. Roxanne said "At some point a zero has to go in. What else can be done before we enter a zero?" I think we have all been guilty of saying, "OK, just one more chance; OK, just one more chance; OK, just one more chance." And we have to be careful not to draw too many lines. It's not a joke anymore when you tell a student or even imply to a student "this is the line, you had better not step over it; fine you stepped over that one, but here's another, you had better not step over that one." And on and on it goes.

Every year many of our students go on to post-secondary. It's not long since I was at university, and I don't recall any of my professors, in my science program, offering extensions on deadlines or offering the opportunity to rewrite an exam. Are we giving our kids a false sense of security, and are we buffering them from the reality of post-secondary by giving all these second chances, opportunities to catch up, alternative tests and quizzes, and helping hands? Is our hand-holding well-intentioned in the short term but harmful in the long term? I wonder if our kids are being set up for failure at the post-secondary level.

Roxanne: Even with our 10-2 or 20-2 kids, we began to ask the question: If our kids pass with a 50, do they really have the skills necessary to go on to the next level? One of our students, Travis, really made us focus on that question. He didn't do much work during the year. During the final two weeks of class, I hounded him, his homeroom teacher hounded him, and his English teacher hounded him. In that two week period, he completed seven assignments. The assignments covered about ten weeks of classroom work—just over half of the course. After the assignments were marked, he had 51%. Was Travis really demonstrating the skill, or was he just doing the work in order to cross the finish line? And, having been hounded so much was he responding and being responsible or was it the teachers? It made us ask, "At what point do we call 'enough?'"

Monique: You were dealing with 10-2 and 20-2 kids. It's not only the non-academic kids. Heather was in my 30-level class. She missed the first three unit exams (there are four in total)—she was always sick on the day of the exam and quite a few other days as well. Her attendance was poor all the way through high school. For 3 years, teachers, department heads, administrators, and parents tried to smarten her up. So what did I do? I told her she wasn't missing any more time. I gave her an opportunity to catch up on the work she missed and the exams she missed. I agreed to meet with her specific lunch times to allow her to catch up.

David: And?

Monique: She and I set up an alternative exam schedule and I put together several new exams. I take a lot of time to put together my exams. They are good exams and they are fair. I know they are good because they tell me what the kids know, what they don't know, what I have taught well, what I need to pay attention to, and what we (students and teacher) need to do to get to where we are going. Good exams that tell you so much take a long time to put together. Usually up to six hours to build a good unit exam. If one kid misses an exam, is it fair to let her write the same exam that all my other kids wrote? No, for lots of reasons but mainly that it gives an unfair advantage. So I put together another exam.

Back to Heather's story. Sometimes she would turn up for one of our appointments, sometimes she would not. Eventually, I just said to her "That's it, no more chances."

David: And?

Monique: And nothing, that was it, she was done. I asked for her to be removed from the course, and she was.

Roxanne: This is not an isolated incident. We hear similar words too often: "It's been two weeks, you haven't handed anything in. We've talked to you, we've phoned home, and we brought the administrators in. That assignment was weeks ago and you have not demonstrated the skill."

So what do we do? Do we have a replacement week at the end of the course? We are not too sure. This year I offered make-up days in June for the English 10-1s and the English 10-2s. We had too many kids not handing in assignments. Kids spent an entire day with me, catching up on assignments.

It may be good practice. It may be good Assessment for Learning practice. We are able to assess our kids' work. We are not giving zeroes, and it gives our kids the chance to demonstrate their skill. But we had a lot of kids who were making it to 50, 51, 52, 53%. That was great. Our students get their five credits, the school receives funding for the five credits, and our completion rates look very good. But do they really have the skill or are they just kind of jumping through hoops. The other issues are the burden on teachers and the tension it creates within a school.

David: We haven't talked specifically about the benefits to the school. Do you think they are significant and do you think they are a factor?

Monique: Of course it's a factor. Second Chances and No Zeroes policies have boosted grades and increased completion rates. We get the kids over that finish line, we increase the number of credits our students earn and that boosts the amount of money coming into the school. As well, increasing completion rates was one of the areas of focus that came from our district administration. It's a goal of our district to increase completion and to increase the number of students who graduate with a high school diploma.

David: Did we come to any conclusions about No Zeroes? Did we decide anything?

Monique: Yes we did, we decided kids are kids whether they are in Grade 5, Grade 10 like Travis, or Grade 12 like Heather. They are going to test the limits. If we draw the line in one place, they will see how close they can get to that line. In fact they will see what happens when they step over the line. But that still leaves us with the questions: Why are we starting with the line closer to the point where we (teachers) give everything? Why don't we pull the line back? And why don't we give ourselves some negotiating room?

Another big problem, our kids are getting confused. The limiting lines shift depending on where the kids are, depending on whose classroom they are in, depending upon what class they are taking, depending on whether it's a 10-level, 20-level, or 30-level subject. This is creating tension for the kids, tension between the kids and the teacher, and, ultimately tension between teachers. How do we solve it? We are not going to get agreement among all staff members to do exactly the same thing. There must be a way to work it so that every teacher has the flexibility to do what is within their comfort zone and yet maintain some consistency for our kids.

Roxanne: I think the No Zeroes policy led us to draw lines, limiting lines and finishing lines. Where we placed the limiting lines and finishing lines created tensions. I believe the tensions led us away from Assessment for Learning and towards the whole idea of student responsibility. If you are going to implement something like a No Zeroes policy and you have to chase and chase and chase, or if you are going to focus on peer editing or self editing in class but your kids come to class and they haven't done their work to edit, how do you deal with that as a teacher? As a department leader, you push teachers in the department to try new things to assess for learning. One teacher wanted his students to type their stories so as to rule out poor handwriting as an impediment to peer editing. Out of 30 kids, only 15 came with work prepared. The whole series of lessons on peer editing leading to self-editing was lost. Sometimes you can feel the attitude, sometimes you can hear them saying: "Well, we don't have to hand anything in until June because there's no deadline." It creates tensions between teachers and kids, between teachers and teachers, and between teachers and administration.

David: Do we stay with the policy? The answer to that must be "Yes" because it is a district policy. Where do we go with the policy?

Monique: We have to be more consistent. When a student asks where the line is, our answer should be more concrete. When a student crosses the finish line and asks, "What next?" we should be able to say, "Now you are ready for the next course."

Second Chances should be earned, not automatic. It should be a privilege, not a right. If we are not careful, it becomes a right. Our students go to post-secondary and there is no Second Chances policy. On the other hand, what happens to our kids who legitimately deserve a second chance? And, just as importantly, the ones that say to themselves, "OK, I have learned my lesson this time, I was given a second chance to do something because I was lazy, I couldn't be bothered, I didn't realize how important it was. Next time I will take the opportunity to do it first time."

Our responsibility, as teachers, is to strike a balance.

Roxanne: Individually, as departments and school-wide, we have to plan a strategy to cope with the No Zeroes policy. One teacher made the suggestion that if an assignment is due on a Friday and nothing is handed in for two weeks, then a zero has to be entered. The problem is we have created a culture of no deadlines. How do we do away with that culture? How do we introduce a culture where there are deadlines? How do we deal with the failures during the transition period? Do we return to the 45% success rates?

As we have been addressing this issue, we have mentioned, in passing, how much work is involved for teachers. I think we have to ask ourselves the question "Are we taking on too much?" We have to be aware of our responsibilities particularly our responsibilities to our students and our responsibilities to be teachers and all that entails. We can't function if we are exhausted.

Act II: Professional Development

Several years ago our district decided to hold a PD day at one of our district's high schools, which I will call Metro High School. All the district's high school science teachers gathered at Metro for the day. At other high schools, math teachers, English teachers, social studies teachers gathered for their own PD days. In preparation for the PD day, teachers were nominated by their peers to present a lab, lesson plan, or best practice. After each presentation, we reflected on what we had seen in the context of our own practices, and then we shared our reflections[22]*. The labs, lesson plans, and best practices went back to our district's high schools and were used and shared to the benefit of our teachers and students. Teachers still talk about this experience of sharing. During the PD day, we may have been segregated according to subject areas, but we returned to our schools with an enthusiasm for sharing. We shared our experiences from the PD day with the math, English, and social studies teachers from our school. And, in turn, they shared with us. The sharing, collaboration, and reflection seemed to be infectious*[23]*. The dialogue among the three research participants, Monique, Roxanne and I, acknowledges the benefits that can result from good PD, but there are concerns. What happens to students when teachers are pulled out of their classrooms? What happens to the flow of the courses they are teaching? Who prepares classes for substitute teachers? Who helps students catch up what they have missed?*

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[22] Pauline Clarke, Thompson Owens and Ruth Sutton (2006) suggested something similar to our PD day at Metro High School. They suggested "visiting each others' classrooms" and "visiting another school and bringing back ideas to share with colleagues" (p. 70).

[23] Unfortunately, not every PD experience is remembered with the same enthusiasm. Two of our districts mentors, Richard DuFour and Robert Eaker (1998), wrote about certain professional development practices and the "negative reaction in veteran educators" (p. 255) that those practices cause.

David: To be fair to our district's and schools' administrators, I have seen a shift in our approach to PD. More collaboration, more openness, and a willingness to listen, to ask teachers how they want to spend their PD time. Is it district-wide or is it just our school?

Roxanne: I think our administrators realized what we wanted and what was needed for effective PD, and I have seen a change, we have been given time for coaching, collaborating, and reflecting. Sometimes, we slip back into an older approach to PD. You described it as "traditional, hierarchical, and centralized." This causes difficulties. But there are always difficulties, sometimes the same difficulties, sometimes different. Think of what we encountered when we started with Assessment for Learning.

Monique: Remember the newspaper article that was pinned on our notice board. The article compared the teaching we are expected to do with the learning opportunities we are given. We are expected to show and teach our kids how to collaborate, to reflect and yet we seldom had opportunities to do anything like that. It's far from perfect now, but it is much better. There is not as much of a mismatch between the teaching that's expected and our learning opportunities.

We have had some good PD sessions; most of them have been good because we have been given the time to collaborate with our colleagues, not just from other schools but with colleagues from our school. We spend so much time in our classrooms and with our kids that we often forget how valuable the time is that we spend with our colleagues. But we have also had some not-so-good PD sessions.

Roxanne: There were difficulties and tensions that developed as a result of some of the "not-so-good" PD sessions. Or was it the compulsory nature of our department's attendance at the PD sessions? Or was it our success in implementing Assessment for Learning that caused the tension? Even before we went to some of the sessions, we knew some of them would be good, some would be poor. Our attendance was compulsory.

David: The sessions that didn't work, why didn't they work?

Roxanne: One reason is our success. Our school and our department had been involved with Assessment for Learning for a long time. We learned from our experiences and the experiences of our colleagues. Often, we found that we were far in front of many of the attendees and, only slightly less often, we found we were far in front of some of the presenters.

Monique: That's what I found when I was asked to participate in a sharing session with a number of other schools. The preparation I did for the sharing session was excellent PD. The actual sharing session was …

David: You're allowed to be blunt.

Monique: … useless.

In the sharing session a number of teachers gathered from various schools. The object was to tell what each school was doing in terms of Assessment for Learning. We were to learn from each other, teach each other, give each other ideas, and share best practices. In preparation for the session, I talked to most of our schools' teachers, particularly the ones who were leading the implementation of Assessment for Learning. I found out what they were doing and why they were doing it. It took quite a long time but it helped so much. Then, when I went to the sharing session, I found the other schools were far behind us. It was disappointing. It was more disappointing when I found they didn't have a good understanding of Assessment for Learning. They didn't have a direction or a plan for implementing Assessment for Learning. After reporting back to our administration, we decided not to participate in future sharing sessions. It seemed selfish on our part, but it was time out of our classroom for our teacher participants; our kids missed out and it just wasn't fair for them.

David: Yes, our school did seem to be leading in implementing Assessment for Learning. When I hear how far in front, I wonder how much was due to direction from administration, how much was due to the freedom that administration gave teachers and how much was due to individual teachers incorporating Assessment for Learning into their practices.

Roxanne: A large dose of each one. Each department is given collaborative planning time. Our administration exerted a kind of tight/loose control. The control was tight in that we were expected to develop some aspect of Assessment for Learning in our departments and we were expected to update administration on how well we were doing. The updates were informal but there were checks and balances – admin.'s classroom visits. The control was loose in terms of what aspect of Assessment for Learning we chose, how we chose to work on it, and how we gauged our students' successes. There's no way our admin. would give significant amounts of time for PD and not check on how the time was spent. I think they may have caused themselves difficulty if they couldn't answer a simple question from district such as: "So what is your staff up to in its PD sessions?"

David: We all went to hear Ruth Sutton speak during our first year of Assessment for Learning. Is that what you did, follow her recommendations? Tell us about some of the things your department did in its Assessment for Learning sessions.

Roxanne: I recall several of our collaborative planning sessions. I used Anne Davies' book[24] and the Alberta Assessment Consortium publications[25]. We went through these books, as a department, and chose several strategies that appealed to us and that we thought we could use in our classrooms. Where necessary, we adapted them to our situations, to our classrooms, to our way of teaching, and to our kids. We tried the strategies and invited colleagues within the department to observe our attempts. We gathered for informal PD sessions during breaks, at lunch times or after school, and we helped each other refine practices and adapt practices for our own classroom settings. It seemed that every time we observed a lesson or part of a lesson, every time we gathered to discuss our observations and suggest refinements, we all returned to our classrooms with something to augment our practice. It is not surprising that many of our teachers went to the district PD sessions and found themselves saying "We tried that last year, adapted it to our classrooms, and passed it on to our colleagues."

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[24] Davies (2000).

[25] Alberta Assessment Consortium (1999, 2000 and 2001).

Monique: We were given the freedom to develop our own PD, we were treated like the professionals we are. We were successful and our admin. was successful. Our success showed in our kids' achievement. At the beginning of last school year, when our department head suggested we visit each others' classrooms and suggested a Cognitive Coaching[26] model as a basis for our visits and our collaboration, we had mixed feelings.

David: Why mixed feelings?

Monique: Teachers in our department wanted more collaboration time, more time together. Our department head suggested this model to guide our collaboration. It seemed artificial. But at first we missed the intent. This model was only meant as a guide, not a prescription to follow to the letter.

After a time, we warmed up to the idea and we initiated a series of classroom visits that were intended to help us introduce and implement

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[26] Beach and Reinhartz (2000) termed the model Cognitive Coaching, "a nonjudgmental process built around a planning conference, observation and a reflecting conference" (p. 142). The process stresses the importance of collaboration among teachers as opposed to isolation within classrooms and the requirement of professional development time for teachers to participate in much needed collaboration. In the situation described, three teachers Norma, Kiran and Monique formed the collaborating group. For the first round of planning, observation and reflection, Norma was the teacher and Monique and Kiran acted as coaches. In subsequent sessions, roles were switched so that each teacher had the opportunity to be observed and to be coached. Initially, Norma, Monique and Kiran used the following guiding questions and suggested outcomes (Beach & Reinhartz, 2000, p. 143):

Coach	**Teacher**
What do you want students to learn form this lesson?	Clarify student outcome(s) for the lesson.
How will the students learn what you want them to learn?	Clarify the plan for the lesson and the teaching strategy.
What will you have students do to demonstrate they have learned?	Clarify methods for gathering evidence of student learning.
What do you want me to observe while you teach? What data should I collect?	Identify the coach's data-gathering focus and procedures.

Assessment for Learning practices. The classroom visits were great. I have to include a bit of history here. Some weeks I don't see much of the people in my department. Yes, we do catch glimpses through our classroom windows. Or we might catch an occasional coffee together during the week. I think someone already mentioned that we accompany each other on our supervisory tours of duty at lunch times. As far as collaborating with teachers from other departments—I can go a week or two weeks and I don't see some people who work at our school. Our administration? In my experience, administrators come in to our classrooms only very occasionally. When administrators visit, teachers often feel they are on the spot. We feel we are being evaluated. I know in this environment of "administrator as instructional leader," when an administrator comes to our classrooms, the purpose may not be evaluation. But it is difficult to get over that feeling. Prior to the last 2 or 3 school years, the only times an administrator (including a department head) came to my classroom were for evaluations for my probationary contract and for my permanent contract. The benefits I gained from these occasional visits were accidental. I think that was the source of discomfort and feelings of unease.

David: There were three people in your group. Did the three of you feel the same?

Monique: Yes, to the point that Norma was really nervous and self-conscious when we observed her. She said that, at first, it felt like being a student teacher again and it was just like being observed by your cooperating teacher.

David: I remember that your collaboration group achieved quite a lot and it seemed to be successful. How did you go from these feelings of unease to success in such a short time period?

Monique: Our other group member was Kiran. We had a common goal, to introduce our students to a new way of performing and reporting laboratory investigations. The three of us decided to coach each other and collaborate using the Cognitive Coaching model at the same time as we introduced this new material to our students. We met beforehand to decide what we were going to do, what we were going to observe and when we would meet again for our reflection conference[27]. I chose my Grade 11 IB class for this project.

Previously, our students were led through labs, told what to observe, what to write, how to present data and how to do a write-up. The IB program is a recent introduction to our school. Some labs involve fairly conventional investigations and reports. For other labs, students are given a problem and asked to solve it. They actually design the lab. Although the introduction of the IB program prompted us to introduce this new material to our students, we felt it was important for them to begin to develop these skills anyway.

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[27] They met to decide specifically what Monique would be teaching and what Norma and Kiran would attend to as they observed the lesson. They met afterwards to reflect on the lesson and to plan the next step—the process is not intended to end after the reflection, the reflecting conference is intended to evolve into the planning conference for the next cycle of observation. It is worthwhile to include the following quote from Beach and Reinhartz (2000):

> For coaching to be successful, sufficient time must be made available to enable the individuals involved to work together. Making time means providing a forum for professional dialogue—freeing up teachers to team with fellow teachers so they can work with each other, examine topics they are not familiar with and observe each other. Coaching provides another way to support professional growth and change in teachers. Inherent in the process is the notion that, in the end, all students will benefit because all faculty are sharing ideas as they work toward the goal of learning for all (p. 144).

The three of us began by looking at the marking rubric supplied by the IB Organization. It shows what students are expected to learn. We decided the best way to present this new way of doing things was to perform a lab and assign a lab write-up to the students. Norma chose to present to her students first with Kiran and I observing. The presentation to students went well. Her students seemed a little shell-shocked. It was understandable. Kids were changing from being spoon fed to doing most everything themselves. They asked quite a few questions, mainly about the processes involved. They came up with criteria for marking their reports. After the class was over, Norma, Kiran, and I met to discuss what had happened. Kiran and I thought the lesson had been well presented. There was buy-in from the kids, primarily because they were asked to be involved.

David: How did Norma feel about the new labs?

Monique: Despite our positive comments, Norma was uncomfortable with the whole process. First of all, it was something new and she felt her students' discomfort which made her feel uncomfortable. Secondly, she was uncomfortable being observed, particularly when it was material that was new and that she was unsure of. She didn't think her teaching had been effective enough. She suggested, "My kids are going to blow this, they will not be able to do the lab. I didn't give them what they need to do the lab."

David: How did the students do?

Monique: They did a good job in designing the lab—they needed help as was expected, this was their first time. But because the designs were effective, the labs were successful. Norma marked the labs and was impressed at the effort and high standard. Her students told her that they had a much better understanding by doing the lab this way.

David: What was the next stage in the process?

Monique: Kiran and Norma visited my classroom. I was really taken by the whole idea of having my peers watch me. I don't normally see another teacher or administrator, except occasionally during breaks or at lunch times. Even at break times, we are talking to our kids, maybe going over something they didn't understand or setting up a tutorial time. At lunch time, we are doing our tutorials. I can go for a whole day and only catch a glimpse of another teacher. In spite of this initial discomfort, it was good to visit someone's classroom and have someone come and visit my classroom. It was two-way support. It was structured and we provided the structure—we decided what we were looking for, it was useful and current to what we are trying to do. There was nothing artificial about it. I think the novelty made it uncomfortable, the novelty of having another teacher in the classroom. After the novelty wore off, it became less of a distraction and more of a help. The feedback was tremendous; it helped as I introduced Assessment for Learning and gave me a lot of confidence as I continued to use Assessment for Learning in my classroom.

Our goal was to meet again but the sad part is that we failed to follow up. The three of us became too busy as the semester wore on. Just trying to make the No Zeroes or Second Chances work by putting together additional tests and exams was taking a lot of time.

Roxanne, seemed to manage this time thing. How did you do it? How did your department do it? Where did you find the time? How did you continue to tear yourselves away from the classroom?

Roxanne: Don't make it sound as though we have been able to fit everything in. We scrambled. Time was and is a major difficulty. Our school is good about allowing its staff time for PD. But even when we are given the time, it's difficult to take it because we don't like leaving our classrooms. If teaching was a television show, it would be a series or a long-running soap opera. It would not be a one-off made-for-TV movie, not even a mini-series. If you miss one episode of a series or a day or so of a soap opera, it takes so long to catch up, and the continuity is lost for much longer than the episode that is missed.

It is not only the continuity that is lost but we spend a significant amount of time preparing to be away. Usually, we prepare assignments for our students. The assignments must be airtight. The substitute teacher may not know the kids, may not be familiar with the material, and may be placed in a difficult situation if she is given a teaching assignment as opposed to a supervising assignment. When we return to our classrooms, there will be a pile of marking to do.

Monique: Yes, the substitute teachers we get are fine, but they can't be expected to just slot in and carry on where we left off. I usually give my students an assignment when I am away and my substitute acts in a babysitting role. PD is valuable, but I can never get back the time I miss with my students. I can't afford that time away from my classes, we have a certain amount of material to cover and it has to be done, particularly in the diploma classes. And we do lose the flow of our courses when we are away, and that too is difficult to recover. How do you get over this?

Roxanne: I never overcame losing the flow but did overcome one difficulty by choosing the days when we were going to be out of the classroom. I did this at the beginning of the year and informed everyone that these days were for PD, they were non-negotiable. I remember the previous year, we kept putting it off—there is never a good time to be out of the classroom. On the one hand, as a school staff, we were enthusiastic. We wanted to try different practices and we wanted to collaborate by visiting each others' classrooms, offering feedback, and setting up the next stage of our journey with Assessment for Learning. On the other hand we didn't even set up regular weekly, biweekly or monthly PD sessions to support our two or three times per year PD days. We neglected to set aside time to negotiate formal expectations, and we didn't decide how we were going to measure our success or lack of success. We were very inconsistent.

David: You brought in someone from district to help. How did that work out?

Roxanne: The consultant helped us decide where we should be going with our English department. She forced us into formal planning. We were compelled to state what our goals were and how we would measure our success. She made us accountable. We needed that outside source; I needed that outside source to help me in my dual role as department head and teacher. As a teacher I get completely immersed in my own teaching and in my own students:

> I have thirty papers to mark, four classes to prepare, exams to prepare. I want a lesson with a twist. I need to wind up my students. And someone wants me to do this Assessment for Learning? I can do it but it will take time.

As a department head, I have to tear myself away from my own teaching and think about the teaching that is happening in the department as a whole. I want to do that and I need to do that but I find it difficult because I have all these other things to do. Bringing a consultant in was not easy. But, with this outside force in place, I was held more accountable as a teacher and as a department head.

David: Once you were able to tear yourself and your department away from the classroom, were you able to get more out of your PD?

Roxanne: Well yes and no. I remember the first time our school staff saw Ruth Sutton. It was one of the best PD sessions many of us had attended, immediately usable and useful in our classrooms. We saw her a second time; it was a repeat, same kind of shtick. My comment is not intended to discredit what she was (and is) doing, but we were ready to move way beyond the level she was speaking to. One of her comments really resonated with me; she said "I do not know why you are paying my fee and my expenses to come all the way across the water to speak here in Edmonton. You have far more expertise within your school district than I can offer you." I couldn't agree more.

Monique: I remember coming back from that second PD session with Ruth Sutton. I had missed the first one, so I found the second one exactly what I needed. Next day I was teaching one of my biology classes. That's when I first started using Ruth Sutton's 10 steps. I remember writing on the board the purpose and the task that lay ahead that day. I remember discussing learning expectations, how we were going to learn, and how we were going to check on the learning—the first 4 of her 10 steps. I know she talked about it in the presentation because I have the presentation notes but I don't know what she said. Obviously, I do remember acting on what she said. My kids quickly began producing better results. I don't mean results just in terms of unit exams, diploma exams, and the like, but results in terms of what they were learning and how they were learning.

Roxanne: Some time later, two teachers from our English Department attended a session on feedback. They said it was excellent; they returned with several strategies that warranted immediate implementation in their classrooms. Several other teachers observed the strategies in action and modified them for use in their classrooms. Another of our teachers came back from a PD program on Assessment for Learning in second languages. She came back raving about what she had learned. She held informal PD sessions in our school to pass on what she had learned. They implemented almost everything from the program and are having some great success.

Monique: That illustrates why Assessment for Learning has been so successful at our school. We are asked for input. The teachers Roxanne spoke of suggested sharing with our school's teaching staff. They were given time to speak and, of course, we were given the time to listen.

We feel that we are involved; we have some say in the implementation of Assessment for Learning. PD communication is two-way. For instance, after we listened to the presentations, the first question that was asked was, "How do we change what we have heard to best suit our school, our students and our own practices?" We were invited to share.

David: And then?

Monique: We adapt the practices to our classrooms. Our colleagues visit. Or it may be district administration, school administration, or a group of teachers who walk through our classrooms. We get some feedback, it is usually informal. And, often, there is teacher/visitor or student/visitor interaction. For instance, the visitors may ask students what is happening in the classroom, what are they learning. I think we are all becoming more and more comfortable with classroom visits.

David: How would you compare PD now to PD before?

Monique: PD feels as though it is a part of my teaching, it never did before. I know I am learning and benefiting from our PD but our time limitations remain sources of frustration. I know we are good teachers. However, it is frustrating knowing we could be even better if we were given a reasonable amount of time to improve our practices.

Roxanne: You know that's the key, time. What can we take away from a PD session that is adaptable and readily usable in our classrooms? What best practices can we add to our repertoire? If we are given time to attend, adapt, practice and collaborate ….

In order to ground us in the reality of PD and to provide a lead in to some constructive criticism I must tell a brief story about a PD session on questioning held at one of our district's high schools. Teacher after teacher stood in the spotlight and told stories about questioning. I cannot recall how many hours it went on (and on and on). It was poor. As each presenter took the stage I remember I kept thinking, "Been there, done that, been there, done that." What teachers want and need is to observe something or be told about something that, at the end of the day, they can use in their classrooms. They need some insight regarding what to look for in terms of results and what to do with that information.

David: That makes me think of one of the basics of Assessment for Learning. Find out where your students are in their journey, find out where they need to go, and collaboratively figure out how you are going to get there.

Roxanne: And really that's the difference between an initiative and PD or between a series of initiatives and a PD program. In the PD program, we build on what has gone before. In order to know what to build, we need to know about the structure that is already in place. It is a well thought out and connected program of activities. By "initiative" I mean the "flavour of the month" offerings that occasionally ooze from district offices and include the latest catch-phrases and buzz-words that the wise "in-the-know" people learn and use frequently.

Teachers know what good PD is. We also know when we are being exposed to initiatives. The bandwagon is usually the reason for the exposure. If there's a bandwagon to jump on, you will find teachers either being forced to jump on it or readily jumping on it. Being a good English teacher, I bring in the pendulum as my second metaphor. Often, that is what we do, jump on the bandwagon, and the bandwagon has some curious connection to the pendulum. Between the bandwagon and the pendulum we go one way, then the other. We forget the stuff in the middle. Are we going to do reading comprehension? No, we are doing Assessment for Learning. No, we are going to do differentiation. And so on. Reading comprehension, Assessment for Learning, and differentiated instruction are all legitimate topics for PD, but they are of no use as initiatives. Teachers feel they have been there and done that and they become tired of what's new this week, what's new next week?

David: Have we stopped the pendulum swinging back and forth, at least for the time being?

Roxanne: Yes we have. Assessment for Learning and the way it has been handled within our district and within our school is set apart from an "initiative." We have emphasized how much it was already a part of our practice. It was simply called by another name or not even named. Assessment for Learning has made me aware of what I am supposed to be doing. It's a shift not a change. Prior to being introduced to Assessment for Learning, I had never really thought about assessment. I marked papers, I gave grades, I put things in computers. I looked at the marks and thought, "Yes, that seems indicative." My teacher-awarded marks always matched with diploma examination marks. But I never really gave a thought to the assessment process and what it meant for me and what it could mean for my kids. It was barely introduced at university. It was never really brought up around the table during my first 10 years of teaching. And then all of a sudden this Assessment for Learning came. And I thought, "Of course I should be thinking about one of the most important parts of this job. How should I be assessing kids?"

Monique: Most of us have done an about face. When our administration first began to talk about Assessment for Learning, I think there was a collective sigh from teachers that said, "Here we go again." Was it a case of another superintendent, another initiative, another legacy for the superintendent to leave behind? But I must admit of all the PD activities or initiatives or whatever we would like to call them, Assessment for Learning has been the most valuable.

I remember some of our previous initiatives being rammed down our throats. We weren't asked to provide input. We were told what we were going to do in our classrooms. Essentially, we were told what was best for us, what was best for our teaching, what was best for our classrooms, and what was best for our kids. Initiatives were presented during our staff meetings. We were supposed to implement what we saw. If we didn't have time for a presentation, one of the ILT members prepared a hand-out. Some teachers had an occasional visit from an administrator. They were told they were not being evaluated, but they were never told what the purpose of the visit was.

Roxanne: Most of us have been through similar experiences. But at this point in our journey with Assessment for Learning, even if the most cynical of us categorize our efforts as an "initiative" and our enthusiasm as resulting from jumping on a bandwagon, I am still going to be left with a better awareness of what my job is about and how I should do my job. And I have things that I have put into my practice that I won't let go of because it has made me more aware, as a teacher, of what I am doing in the classroom and the impact I am having on my kids. That's what differentiates something like Assessment for Learning from a lot of other things that come our way. It is not something we do once a week or once per month and we're done with it; it is every day, every class, every lunch time, every tutorial. It's not something that applies to just one small group of kids or one small group of teachers; it applies to everyone. We need to know how to assess better.

Monique: We have not only benefited from the content but the way we have been involved. Teachers are involved in classroom visits or walk-throughs as they are now known. We learn from the teachers we observe, we learn as we discuss what we saw and we are a part of the classroom visitation group that used to be the sole privilege of the administration. Teachers are included and involved. We benefit and our kids benefit.

My level of involvement and my feelings of involvement are such that when walk-throughs come into my classroom, I don't regard it as an intrusion and I feel comfortable. However, when one member of the previous administration came in to my classroom I felt uncomfortable; I felt it was an intrusion, and I felt it was done to check up on me rather than to help me. I now feel that our involvement is positive.

David: Those are the positives, but what about the downside, is there a downside?

Monique: When we go on walk-throughs or go to PD sessions. We are not in our classrooms and we are not teaching our kids. They miss out and we miss out. We have to ensure that our kids catch up on what they missed. Also, we are making the mistake of not inviting the teacher being observed to be a part of the discussion group—given our experiences with the Cognitive Coaching model, the teacher should be involved in the meeting before the visit and the meeting after the visit.

I think I just captured our dilemma. Here I am suggesting that the teacher should be involved in the pre-visit meeting and the post-visit meeting and, at the same time, I am saying that the teacher doesn't really have the time to be involved because of the amount of time she will miss with her kids. What is the answer? If we are to take PD seriously, it has to become a scheduled part of a teacher's day.

David: The answer is very similar to the answer to our No Zeroes dilemma. We have to strike a balance. We know we need to collaborate, we know we need to learn via our PD sessions, and we know we need to be in the classroom for our kids. So we strike a balance, and that balance is likely going to be different for every teacher. Some of us will be reluctant to strike a balance because we prefer being in the classroom, because we care about our kids and we love teaching. So someone has to remind us about the balance. Just as Roxanne did when she set her PD times at the start of the year and declared them to be non-negotiable.

Monique: Easier said than done.

David: You placed so much emphasis on collaboration and being provided with the time to collaborate during a normal school day. You said that it has worked for you and your colleagues. But you have a warning for us. Tell us what happened during your most recent PD day.

Monique: Before the warning. I have to give another plug for collaboration. I will stop talking about collaboration and its benefits when we get enough time to collaborate. Collaboration is the key. Collaboration without the thoughts of, "We are missing our kids, we have to catch up; how do we do that, how do we make up for the lost flow?" Collaboration via the Cognitive Coaching model would have eased us through some of our earlier difficulties with Assessment for Learning. For instance, we could have tried peer assessment, spent time adapting peer assessment to our classrooms, to our particular ways of teaching, and to our kids with the help of our small group of collaborators. I think there would have been even greater commitment and acceptance had we gone this route. Once peer assessment was established, it could have been used as a stepping stone to the next strategy or to introduce Assessment for Learning as an overall concept, or both[28].

Eventually I got the point of Assessment for Learning. I figured that I was doing a lot of Assessment for Learning anyway. I decided that I should include more of it but in such a way as to complement my present teaching practice rather than undergo wholesale changes. And this was in collaboration with my colleagues, of course. The collaboration helped me a lot. What helped me most was hearing my colleagues say, "Well, I do that anyway" or "I do most of what is being suggested I only have to add…."

I remember, after we started with Assessment for Learning, I watched one of my colleagues, a veteran teacher; she would do practice tests and help the kids along the way by providing helpful hints as they did their tests. At the end she would do peer assessment. She didn't call it Assessment for Learning, although that is what it was. So after I saw things like that I gave it a try, knowing that I could make it work for me.

And, of course, I was able to make Assessment for Learning fit into my way of teaching. I went from a point where I was almost rebelling against this new stuff to a point where I accepted and included it in my classroom practice. I think what happened was, as I tried this stuff, it became more familiar and applicable. My colleagues were trying stuff and I was seeing the positive results of them trying it.

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[28] Black et al., (2003) used the term "Trojan horse" to describe this approach: "Although some teachers embraced a range of techniques, for others a single idea acted as a 'Trojan horse' in promoting an extensive change in their practice" (p. 80).

It was tough to implement Assessment for Learning in biology—many questions do not call for a right or wrong answer and with 36 kids in class; it is difficult to check the answers as they are writing. It would have been advantageous for me to have spent time with our English or social studies teachers. Or, even better, to have collaborated with biology teachers from other schools—providing the other schools were at the same place as we were in their Assessment for Learning work.

I sound like a broken record, I keep coming back to collaboration—teachers need to engage in professional dialogue, we need to keep refreshing our practice but where is the time to do this? When I leave my classroom, I leave my kids with a substitute. Although that substitute may have the best intentions in the world, it is still a disruption for my kids. They miss out on my time; they have zero spare time in either the diploma courses or the Grade 11 courses which lead to diploma exams. When I get back I have to take time to mark what they did in class. Even if I use peer marking, we still have to take time out of class. And I have to catch up on the class time I missed.

So, overall, I am pleased with the way things have gone with Assessment for Learning. Our PD has improved a lot. Much of the credit for that must go to our administration. With some official, weekly collaboration time, our PD would improve even more.

David: Did we get to the warning?

Monique: Sorry, yes. Our last PD session was towards the end of the school year. Everyone was busy—and I suspect everyone was tired—including our administration. The topic was questioning, an important part of Assessment for Learning. Four or five teachers were chosen to present a mini-lesson, in their own classrooms, to other staff members. The staff members rotated through each room. Unfortunately, those responsible for the PD day did not give us time to prepare our lessons; they didn't give us sufficient information; we didn't know what we were preparing for. I asked, "Am I supposed to be demonstrating how I ask questions? Am I supposed to be demonstrating how I encourage my students to ask questions?" No answers.

PD day came, and our audience of teachers didn't seem to know what they were looking for either. They didn't know whether they were supposed to be listening, taking notes, asking questions, or being prompted to ask questions. After each presentation, our audiences completed feedback sheets. The general lack of direction led to comments such as "Nice lesson on diffusion," "I didn't know that you did that in biology," and so on. There were no comments on the questioning.

We don't get many PD days and PD opportunities, so it's very disappointing when we get a PD day and the planning has not been all that it should be. It was very frustrating. There was no preparation time and no time afterwards for reflection. So I don't think we learned too much about questioning. I hope we learned about the mistakes we made when we tried to put together a PD day with little planning.

During her presentation, Ruth Sutton suggested that when you have a choice between quality and coverage, always choose the quality. In other

> words, if you can't prepare your teachers and get the maximum out of a PD day, don't simply rush through so we can say, "Oh yes we did questioning." It was a very frustrating exercise; we went back to the pre-Assessment for Learning days. Really it was worse because we used to get some direction in those days; we were told exactly what we should be doing. I think someone should have had the courage to say, "Look, do your own PD, you're responsible professionals, what do you want to do that day?" From my perspective, there was no value placed on my time and my PD by our leadership. There was no time and effort put in. Could anyone blame our teachers if they adopted the mind set: So if our leadership didn't put time and effort in, why should I?

Puzzling

The dialogue indicates that Monique, Roxanne and I were dealing with the puzzle. Students were involved in their learning, they were excelling in the safe environment of replacement exams and Second Chances.

Roxanne and her colleagues in the English department had a successful first year. The English 10-2 students improved from a 45% to a 78% successful course completion rate. Roxanne indicated that the improvements were not sustainable because they were "time-consuming" and "disorderly." Eventually, Roxanne and her colleagues had to call a halt to their work. I wondered what alternatives there were to the disappointment and frustration Roxanne and her colleagues experienced. Would more PD time help? Monique, Roxanne and I agreed that PD was valuable but it took us away from our students and disrupted the flow of lessons and courses. I struggled with the puzzle of PD; I wondered how we could continue with valuable PD alongside regularly scheduled classes.

As our conversation continued, the three of us puzzled about lines. First of all, we puzzled about limiting lines and where they should be drawn. We wavered about where lines should be drawn. We found it tiring to chase students and ensure they took advantage of their second chances. All three of us gave some indication that we often sought to give students one more chance even though this created inconsistencies from teacher to teacher and restricted teachers' abilities to negotiate. But, one more chance meant we had one more chance to teach and get through to students, the relationship with students did not end. In a similar manner, that part of the puzzle did not end. Where do we draw the (limiting) line?

We also puzzled about finish lines. With some students, it was difficult to tell whether they legitimately crossed the finish line or they were pulled, pushed or dragged across by their teacher. Were they then ready for the next level? The issue of 50% (pass mark) or 60% (recommended mark) in course prerequisites, added to the puzzle. Where do we draw the (finish) line?

Towards the end of year three (2006-2007 school year) of Assessment for Learning, there was a feeling that the school, and possibly the district, was returning to a more traditional approach to PD. I wondered why the school would return to the more traditional approach. I understand that administration may have been weary after three tough years, but did a more traditional approach require less energy or did something else give rise to a return to a more controlling PD environment?

CHAPTER 10. SO WHAT?

What is Assessment for Learning?

In the early part of this work I asked, What is Assessment for Learning? I suggested that Assessment for learning is not just focused on student work. I have come to think of it as being focused on what happens in the classroom, on our students' teaching and learning and on our teachers' teaching and learning. If we use a similar definition of curriculum to that defined in *Teachers as Curriculum Planners: Narratives of Experience* (Connelly & Clandinin, 1988)—what happens in the classroom—then Assessment for Learning is intricately interwoven with curriculum. And, as with curriculum, it is "looked at from the point of view of the involved persons" (p. 4) and the personal practical knowledge of those involved persons.

Through my writing I have been able to reflect upon the work my colleagues and I have undertaken over the past 3 years. I have written, read, and listened to my stories and had the privilege of writing, reading, and listening to the stories of my colleagues. The writing, reading, and listening helped me to expand the answer to the question, What is Assessment for Learning? It is a shifting of the curriculum. From the teachers' perspective it meant showing the courage to not only allow the shift to occur but also to be pro-active and encourage the shift to occur. The shift required a redistribution of the control structure within the classroom. It necessitated relinquishing some of the control, which at times proved to be difficult. Monique, Roxanne, and I hold ourselves accountable for what happens in our classrooms. We accept the responsibility for students' performances in courses, on diploma exams, and even as they enter post-secondary institutions. It is sometimes difficult for us to accept responsibility for something we do not have complete control over.

We used Assessment for Learning to shift the curriculum. Where did the courage come from? Monique told me that it was her colleagues, particularly one colleague, a veteran teacher:

> She would do practice tests and help the kids along the way by providing helpful hints as they did their tests. At the end she would do peer assessment. She didn't call it Assessment for Learning, although that is what it was. So after I saw things like that I gave it a try, knowing that I could make it work for me. (Personal communication, June, 2007)

I gained the courage from my students. I watched my Grade 11 students as they became more comfortable, confident, and successful as I tried Assessment for Learning. However, I remained reluctant to try similar strategies with my students who were in diploma courses. My reluctance, or fear, stemmed from the importance of diploma exams. How would it be if I used my students as guinea pigs, they didn't perform well on their diploma exams, and didn't make it to post-secondary? And as I looked at the problem from a different perspective, I wondered how unfair it was to keep proven, successful strategies away from my Grade 12 students. Very quickly, the success of my Grade 11 students gave me the courage to implement Assessment for Learning with all my students.

Roxanne told the story of a teacher in her department who resisted changing her classroom practices. The teacher gained courage from Roxanne's guidance. Roxanne used the teacher's reliance on marks to ease the transition:

> She seemed to form an understanding of what was happening in her classroom through her marks. I don't mean that she saw marks and didn't see kids, but she formed an understanding of her kids' achievements through their marks. As we (her and I) went through her kids' marks, we noted where improvements had been made, where there was still room for improvement, where we needed to make better connections with kids and where we could try some of the different techniques from the Assessment for Learning literature. By the end of that second year, she had adapted some Assessment for Learning strategies for use in her classroom and in her practice. A few things had changed and others were still changing in her classroom. Marks were improving. More connections were being made and others were improving. That was a win. (Personal communication, June, 2007)

Our students saw Assessment for Learning as a new way of being in school and being actively involved in the learning process, a new way of participating and collaborating with teachers. It was different, and for some it was difficult. For instance Roxanne described some of her English 10-2 students as "not feeling too good about themselves or their learning …. They likely don't have a good relationship with school, they likely don't have good relationships with teachers and many of them come to high school believing they are failures" (Personal communication, June, 2007). Clearly, in order to participate and collaborate, for that is what Assessment for Learning called for, some of our students had to show a great deal of courage. They needed courage to collaborate with a group of people (teachers) who may have, from their point of view, previously participated in their failures. Not all students opposed collaboration with their teachers, many welcomed the opportunity. But there was a next step in Assessment for Learning. Many students needed courage to take that next step toward accountability. Some students took the step, others were pushed toward accountability. Why was it so difficult for some students? The work of Dweck (2000) helped me to see that a significant proportion of students, those with performance goals, the Entity Theorists, welcomed accountability only when they were assured of success. Those students did not relish the prospect of making mistakes and being held accountable for those mistakes, even though there was the potential for learning from them.

From an administrator's perspective, Assessment for Learning initially meant showing patience, offering guidance and encouragement, and allowing teaching staff to discover Assessment for Learning for themselves. A patient administration allowed teachers to proceed at their own pace, to integrate Assessment for Learning into their own practices, and to collaborate with colleagues in modifying existing practices. The patience lessened the pain as new strategies were incorporated into teaching practices. According to Monique:

> What helped me most was hearing my colleagues say "Well, I do that anyway" or "I do most of what is being suggested I only have to add ...." So after I saw things

> like that I gave it a try, knowing that I could make it work for me. And, of course, I was able to make Assessment for Learning fit into my way of teaching. I went from a point where I was almost rebelling against this new stuff to a point where I accepted and included it in my classroom practice. I think what happened was, as I tried this stuff, it became more familiar and applicable. My colleagues were trying stuff and I was seeing the positive results of them trying it. (Personal communication, June, 2007)

For our administrators, Assessment for Learning was also listening. Administrators listened and acted accordingly as teachers shared their views on PD. As a result, teachers bought in to Assessment for Learning. Monique illustrated the point when she shared part of her perspective on her school's PD activities:

> We have not only benefited from the content but the way we have been involved. Teachers are involved in classroom visits or walk-throughs as they are now known. We learn from the teachers we observe, we learn as we discuss what we saw and we are a part of the classroom visitation group that used to be the sole privilege of the administration. Teachers are included and involved. We benefit and our kids benefit. (Personal communication, June, 2007)

She added: "PD feels as though it is a part of my teaching, it never did before" (Personal communication, June, 2007).

How Do We Do Assessment for Learning?

A Changing Question

The second question I posed was, How do we do Assessment for Learning? As I worked with my colleagues, listened to their stories and, through them, the stories of their students, the meaning of the question gradually changed. Initially, it had a sense of What strategies do we use when we are teaching in an Assessment for Learning environment? and What do these strategies look like in the classroom? Thinking of our journey with Assessment for Learning, I found this to be a relatively easy question to answer. Among the strategies that Monique, Roxanne, and I named and described are No Zeroes, Second Chances, Traffic Lights, One to Ten, peer assessment, self-assessment, peer coaching and peer teaching, students building exams, and students teaching each other how to write exam questions and how to answer exam questions. What did the meaning of the question change to? It is difficult to describe because I look at the question, and instead of seeing a collection of strategies I visualize a journey through time and a journey across a shifting landscape. The journey takes us from a landscape of pre-Assessment for Learning days to a shifted landscape shaped by new stories of assessment.

Willing Travelers, Reluctant Travelers

I recall that some of us were willing travelers who knew that our final destination would benefit students, teachers, and school. Some of us were reluctant travelers and preferred to observe before participating. It fell to the willing travelers to encourage others to begin the journey, invite others into their classrooms, and demonstrate how Assessment for Learning and its strategies could be adapted and how, once adapted, they benefited teachers' practices and students' learning. How did the transition occur from reluctant to willing?

I saw the change occurring as a result of many discussions and negotiations among virtually all the participants—students, teachers, and school and district administrations. Monique provided an illustration of how she was a reluctant participant, primarily due to the way change initiatives were handled in the past: "Previous initiatives being rammed down our throats … we weren't asked for input … told what we were going to do … told what was best for us … best for our classrooms … best for our kids" (Personal communication, June, 2007).

However, she became a willing traveler as she watched her colleagues introduce Assessment for Learning strategies. She observed a respected colleague use Assessment for Learning strategies but not name them as such. She discussed, with her colleagues, the progress they had made. The collaboration encouraged her to think about some of the methods she used and how the notion of Assessment for Learning could enhance those methods. She began by adapting a previously used strategy which involved practicing old diploma exams. After modification, the strategy became an exercise, for students, in analyzing old diploma exams and sharing the results of the analyses. It was immediately successful with some students but not others; there was some resistance to the new methods as Monique pushed her students to be more responsible and accountable for their learning. So, she further modified the strategy, modeled her expectations and made a few compromises. Monique shared her success:

> Eventually, every student in class made positive comments on the learning that took place in these sessions. They told me that they really got to know the style of questions that were being asked on diploma exams. In explaining the question, they explained to each other how they were thinking about the question, they talked about their thought processes and why they were thinking that way. (Personal communication, June, 2007)

Monique shared the practice with colleagues and, after adapting it to their practice, they found similar success. The sharing occurred as part of the professional dialogue that happened before school, at recess, over lunch or after school.

Negotiations

I looked back at this particular episode and saw it as a multi-stage negotiation. Initially, colleagues shared. They collaborated, discussed best practices, and negotiated a new curriculum using those best practices. Also, teachers engaged in personal deliberations as they negotiated ways to modify and present previously used strategies in the context of Assessment for Learning. Monique modified a pre-Assessment for Learning strategy. She engaged in a give-and-take approach with her students and eventually persuaded them to accept her modified strategy. Her students saw the initial disadvantages of harder work, more responsibility, and more accountability outweighed by the eventual benefits of greater understanding and success on their diploma exams.

Roxanne told the story of one of her colleagues who found it difficult to make connections with Assessment for Learning strategies. She knew she had to engage the teacher and negotiate a way out of her difficulties. Marks were used as a negotiating medium; Roxanne's colleague "seemed to form an understanding of what was happening in her classroom through her marks … she formed an understanding of her kids' achievements through their marks" (Personal communication, June, 2007). Roxanne indicated, "by the end of that second year, she had adapted some Assessment for Learning strategies … marks were improving … more connections were being made and others were improving" (Personal communication, June, 2007).

These were two sets of negotiations that accompanied the introduction of Assessment for Learning. The negotiations continued and still continue. From a wider perspective, what did the negotiations look like as Assessment for Learning was introduced to our school, to our classrooms, and to our practices, and who was involved in those negotiations? It seemed to be a layered series of negotiations about curriculum making among students, teachers, and administration. Negotiations involving students and teachers occupied the core. The negotiations were not dissimilar to those involving Monique and her students. Teachers introduced new practices. Some students welcomed the changes; some accepted the changes after encouragement and explanation from their teachers; some resisted. Teachers encouraged, pushed, persuaded, and offered compromise to break down the resistance.

Wrapped around the core were negotiations among teachers. Some of the stories of teacher-teacher negotiations were similar to the one told by Roxanne in which she and her colleague disentangled themselves from a difficult situation by using marks as the negotiating language. Other stories were similar to Monique's. They were based on observation, discussion, collaboration, and some degree of compromise as teachers modified strategies to incorporate Assessment for Learning into their practices.

Enfolding the whole were the administrator-teacher negotiations. Initially the administrator-teacher negotiations didn't seem like negotiations at all, they were more like directives, the flow was top down. Although the nature of the administrator-teacher negotiations did change, at first we seemed to be in a time and place on our professional knowledge landscape "filled with knowledge funneled into the school system for the purpose of altering teachers' and children's classroom lives (Clandinin & Connelly, 1998, p. 151).

Curriculum - at the Heart of Negotiations

The layers were not isolated from each other. As time progressed, negotiations occurring within each layer informed the negotiations in other layers and the directives became negotiations, collaborations, discussions, and questions among the layers. Always at the heart of the negotiations was curriculum. And as we write, read, and think about curriculum, it may be helpful to remember its inherent complexities:

> All teaching and learning questions – all curriculum matters – (are) looked at from the point of view of the involved persons … curriculum development and curriculum planning are fundamentally questions of teacher thinking and teacher doing … it is a teacher's personal knowledge that determines all matters of significance relative to the planned conduct of classrooms. (Connelly & Clandinin, 1988, p. 4)

I previously used a model suggested by Connelly and Clandinin (1988) to explain my understanding of curriculum (see page 29). "The general idea is that curriculum is something experienced in situations" (p. 6). *Persons* refers to the students and teachers, both groups involved in the processes of teaching and learning. *Things* are such items as text books and other resources that our students and teachers use as they engage in teaching and learning processes. Infused within both processes and things is subject matter. "When we say the word 'curriculum,' then, we need to have a picture in mind in which all of these parts are in interaction" (p. 7). And the picture must show a dynamic rather than static interaction among persons, things and processes. The picture of the "classroom situation must also be dynamic in a historical sense" (p. 8). Teachers and students have a history which is reflected in their interactions in the classroom as they engage in "continually remaking that history" (p. 8). Similarly, teachers and students have a future which is affected by historical and present events, just as historical and present events are affected by how we view our futures.

By using the notion of personal and social (Clandinin & Connelly, 2000) curriculum became: The dynamic model that involves interactions among the individual, the persons, and the groups … each interchange, verbal and non-verbal influencing the flow and being influenced by the flow and by the interactions among things, persons and processes. Curriculum's strong temporal component adds to the complexity … Our histories and our presents take the journey with us to tomorrow and influence our future. Certainly, when we speak of curriculum at school, a major focus is tomorrow or, at least, preparation for tomorrow. Thus, our tomorrows influence what we do today and influenced what we did in the past.

Personal Practical Knowledge – at the Heart of Curriculum

Persons and, hence, personal are key components of curriculum. Personal practical knowledge is the channel through which What is curriculum? and How do I do it? are brought together within the person. Personal practical knowledge is a way of "reconstructing the past and the intentions for the future" (Connelly & Clandinin, 1988, p. 25) to deal with the demands of a present situation. The demands of a particular situation draw out specific stories or parts of stories. Some are intended and promoted by the person, some are unintentional. The stories carry emotional, moral, and aesthetic content. We can say that we deal with situations, including curriculum situations by drawing, affectively and objectively, from personal practical knowledge that may be found in our stories from the varied and different parts of our lives. Connelly and Clandinin (1988) offer narrative as a way of conceptualizing how we live out life stories from the whole of our lives:

> A narrative is a kind of life story, larger and more sweeping than the short stories that compose it. Narrative is the study of how humans make meaning of experience by endlessly telling and retelling stories about themselves that both refigure the past and create purpose for the future. To study narrative in trying to understand the personal, one needs to ask questions about not only the past, or the present or the future, but about all three. For any one teacher, therefore, clues to

> the personal are obtained from one's history, from how one thinks and feels and from how one acts. (pp. 24-25)

The excerpt guides me to the interwoven and dynamic connections between the idea of narrative as stories of lives and the notion of curriculum as experienced in past, present, and future situations. Taking this one step further, by understanding my own narrative and, therefore, my own curriculum, I will better understand the curriculum from the perspective of students, colleagues, and administration via the connections I make.

As Monique, Roxanne, and I journeyed through time from the pre-Assessment for Learning days, I believe our negotiations, discussions, and collaborations were where and how connections were made. From the negotiations, discussions, and collaborations, we all gained a better understanding of where we were, where we needed to journey together, and how we were going to make the journey. That is, how we were going to shift curriculum as we did Assessment for Learning.

A Shift in the Professional Knowledge Landscape

Clearly, the negotiations, discussions, and collaborations were complex and resulted in shifts in the way we all practiced. Because we were negotiating something personal and social—curriculum—it was not surprising that some shifts were pleasant, some painful, and some tense.

My introduction to Assessment for Learning came as a result of an opening negotiation with a parent. At around the same time, the district's teachers began to hear about the district's new initiative, *Using Assessment to Drive our Teaching*. I was initially uncomfortable with the concept. However, I now see it as the beginning of our district's eventual successful attempts to shift our professional knowledge landscape and thereby change the relationship between school-based staff and district-based staff and policies.

The Professional Knowledge Landscape

Clandinin and Connelly (1998) describe the professional knowledge landscape as "composed of two fundamentally different places, the in-classroom place and the out-of-classroom place" (p. 151). The out-of-classroom place is:

> A place filled with knowledge funneled into the school system for the purpose of altering teachers' and children's lives… we hear teachers express their knowledge of their out-of-classroom places as a place littered with imposed prescriptions. Researchers, policy makers, senior administrators and others, using various implementation strategies, push research findings, policy statements, plans, improvement schemes and so on down what we call the conduit into this out-of-classroom place on the professional knowledge landscape. (p. 151)

There are clear similarities with Monique's description of her pre-Assessment for Learning out-of-classroom place:

> I remember some of our previous initiatives being rammed down our throats. We weren't asked to provide input. We were told what we were going to do in our classrooms… what was best for us… best for our teaching… best for our

> classrooms… best for our kids. Initiatives were presented during our staff meetings. We were supposed to implement what we saw. If we didn't have time for a presentation, one of the ILT members prepared a hand-out. Some teachers had an occasional visit from an administrator. They were told they were not being evaluated, but they were never told what the purpose of the visit was. (Personal communication, June, 2007)

With respect to the in-classroom place, Clandinin and Connelly (1998) wrote:

> Classrooms are, for the most part, safe places, generally free from scrutiny, where teachers are free to live their stories of practice. These lived stories are essentially secret ones. Furthermore, when these secret stories are told, they are, for the most part, told to other teachers in other secret places. (p. 151)

The words "scrutiny" and "secret" do not appear to be compatible with a comfortable, open place of learning. Why would such words be used? Once again, we can listen to Monique:

> In my experience, administrators come in to our classrooms only very occasionally and, even less frequently, our colleagues visit us. When administrators visit, teachers often feel they are on the spot. We feel we are being evaluated. I know in this environment of "administrator as instructional leader," when an administrator comes to our classrooms, the purpose may not be

> evaluation. But it is difficult to get over that feeling. Prior to the last 2 or 3 school years, the only times an administrator (including a department head) has been in my classroom are when I was being evaluated for my probationary contract and when I was being evaluated for my permanent contract. The benefits we gain from these occasional visits are accidental. I think that was the source of our discomfort and feelings of unease. (Personal communication, June, 2007)

The Shift

The pre-Assessment for Learning professional knowledge landscape did not seem compatible with district leadership's new goals and aims. Benefiting from the ability to look back over the 3 years of Assessment for Learning, I see that a shift in the professional knowledge landscape was realized by changing the nature of the out-of-classroom and in-classroom places. In the out-of-classroom places, prescriptions were no longer to be imposed. "Research findings, policy statements, plans, improvement schemes and so on" (Clandinin & Connelly, 1998, p. 151) were no longer pushed down the conduit. There was to be a two-way flow. Monique tells us:

> We are asked for input. We feel that we are involved; we have some say in the implementation … communication is two-way … after we listened to the presentations, our first directive was "How do we change what we have heard to best suit our school, our students, and our own practices?" We are invited to share. (Personal communication, June, 2007)

In other words, teachers' personal practical knowledge was honoured as we were invited to present our perspectives based on our curriculum expertise—our understanding of the classroom. And, as the sharing occurred, the in-classroom place became more open. Teachers were given the time, resources, and encouragement to be involved and to collaborate. The scrutiny changed to observation and collaboration, although not without tension. Over time, the secret lived stories became stories of sharing practices in open forums with colleagues. It proved to be difficult initially, but through our continuing negotiations, it seemed as though we were changing the nature of the knowledge landscapes in our in-classroom places and our out-of-classroom places.

The changes that occurred may also be looked at in terms of the black box metaphor presented by Black and William (1998). Our classrooms were similar to the black box described by the authors:

> Certain inputs from the outside—pupils, teachers, other resources, management rules and requirements, parental anxieties, standards, tests with high stakes and so on—are fed into the box. Some outputs are supposed to follow: pupils who are more knowledgeable and competent, better test results, teachers who are reasonably satisfied, and so on (p. 2).

Black and William asked three linked questions:

> What is happening inside the black box?
>
> How can anyone be sure that a particular set of new inputs will produce better outputs if we don't at least study what is inside?

> Why is it that reform initiatives are not aimed at giving direct help and support to the work of teachers in classrooms? (p. 2)

The changes that occurred (the shifts in the professional knowledge landscape) saw an opening of the black box, a collaborative effort to study what was happening inside the black box, and mostly successful attempts to match reform with teachers' requirements for help and support.

How Did the Shifts in the Professional Knowledge Landscape Occur?

Professional Development

How did the changes occur? As the district leadership group became aware of the mismatch between the reforms it was trying to initiate and its teachers' requirements for help and support, it signaled its willingness to accept and promote a shift in the professional knowledge landscape by using people such as Ruth Sutton, Richard DuFour, and Robert Eaker.

Ruth Sutton entertained and informed our district's teachers via a series of presentations on Assessment for Learning. Her presentations were student-focused, teacher oriented, and practical. Their contents were appealing to many of the teachers who attended. Richard DuFour and Robert Eaker acted as mentors and helped to change the district's approach. The result was a shift in the way our district presented its PD from a mostly traditional, hierarchical, and centralized approach to a more collaborative, constructivist, and decentralized approach (Lambert, 1998).

An understanding that the professional knowledge landscape was shifting began to be realized from the stories told in the district's schools. I believe our principal acknowledged the pre-Assessment for Learning mismatch "between how teachers are expected to teach and how they are encouraged to learn" (National Commission on Teaching, 1996, p. 84). The acknowledgement was simple and direct; she posted an excerpt from a report by the National Commission on Teaching (1996)[29].

Teacher Input

At the classroom level, the shift encouraged teaching staff to buy in to Assessment for Learning. It gave teaching staff the confidence to become involved in Assessment for Learning. We were asked for input. In our PD sessions we were given time to speak, and of course we were given time to listen.

We were aware that Assessment for Learning was initially a district initiative. However, we were given freedom to say how classroom implementation would occur and how we would handle support mechanisms. We were involved and the involvement led to innovative and beneficial changes—our experiences with the implementation of Science 10 Prep. as a replacement for Science 14 told us we were involved and that our personal practical knowledge was honoured. Communications regarding how PD was presented were two-way. For instance, after we listened to presentations, our first directive was an encouragement to innovate and collaborate. It seemed to be a commitment to continue to listen to teachers' voices and offer opportunities to collaborate and learn through that collaboration. Occasionally, we slipped back into the more traditional approach to PD and, as Monique indicated, "We don't get many PD days and PD opportunities, so it's very disappointing when we get a PD day and the planning has not been all that it should be" (Personal communication, June, 2007).

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[29] There is a mismatch between the kind of teaching and learning teachers are now expected to pursue with their students and the teaching they experience in their own education. Teachers are urged to engage their students in actively building their understanding of new ideas; to provide opportunities for practice and feedback as well as for inquiry, problem solving, collaboration, and critical reflection; to connect knowledge to students' development stages and personal experiences; and to carefully assess student learning over time. These desirable characteristics of teaching are usually absent in the learning afforded to teachers. There are few parallels between how teachers are expected to teach and how they are encouraged to learn (National Commission on Teaching, 1996, p. 84).

Teachers were given the opportunity to negotiate how Assessment for Learning was introduced into their practice. Much of the negotiation was concerned with changes to the way we did things, changes to the planned and experienced or lived curriculum. Clandinin and Connelly (1998) indicated that our in-classroom places are "for the most part, safe places, generally free from scrutiny, where teachers are free to live stories of practice" (p. 151). When we introduced changes, we were in transition. What did our safe places become? Did we remain free of scrutiny? Along with the changes came classroom visits. We were told it was not evaluation, it was not scrutiny. Yet it was still uncomfortable for some of us. The changes involved sharing our practice in an open forum. Ruth Sutton (2005) told us that "teaching is a deeply habitual activity and changing habits takes practice, practice, practice." And, as we changed habits, our personal practical knowledge changed. Some teachers willingly and enthusiastically changed, others had to be shown that change was worthwhile while others had to be persuaded, encouraged, and pushed.

Catalysts for Shaping New Stories on the Professional Knowledge Landscape

Our school administrators acted as catalysts for change. In a similar manner to our district leadership, they sought to change the knowledge contexts of the out-of-classroom and in-classroom places.

They gave up staff meeting time and turned them into PD sessions. In previous years, each staff meeting was a forum for administration to push information, "research findings, policy statements, plans, improvement schemes, and so on down what we call the conduit" (Clandinin & Connelly, 1998, p. 151). As changes occurred, discussions, negotiations, and collaboration were promoted in our staff meetings. In order to continue this metaphor, I originally suggested that the changes led to a two-way flow in the conduit. However, I believe it would be more appropriate to suggest that our administration joined us in our out-of-classroom places and, as often as time allowed, joined us in our in-classroom places and the flow happened around and among everyone in both places. There were periods of transition with accompanying feelings of discomfort for all teachers and administration (yes, I recall our administration appearing uncomfortable as they entered our in-classroom places).

Returning to the metaphor presented by Black and William (1998), it seemed that our work inside the black box was being directly supported by our administration and our administration was encouraging collaboration as an additional support for our work inside the black box.

In our new format staff meetings, we were given opportunities to collaborate, to teach and learn from each other, and to negotiate our new curriculum based on our work with Assessment for Learning. We gathered in small groups, sometimes grouped according to our choice, other times by department, and often according to our administration's choosing. In our small groups, we discussed the two *Black Box* articles (Black & Willliam, 1998; Black et al., 2004) and *Testing, Motivation and Learning* (ARG, 2002a). We shared and discussed our small groups' resonance points with the larger group. We asked for opportunities to collaborate, to develop, and share best practices, and we received those opportunities. And, in return, we knew there were expectations.

Our administration asked teachers to accompany them on their classroom visits. They emphasized that the visits were a search for best practices to share with a larger audience rather than attempts to scrutinize and evaluate. Administrator-led classroom visits gave a greater level of comfort to some of our staff in their in-classroom places as they became more involved and were given a better understanding of the purpose of the visits. Administration rescheduled lunch time supervision, taking extra duties themselves, so that teachers could facilitate tutorials.

Moving Negotiations to the Classroom

Those of us who began to implement almost before we had finished discussing were aware that students were not at the table, during staff meetings, as the newly negotiated curriculum was developed. We were also aware that the newly negotiated curriculum would be renegotiated as we introduced it to students. As best as we could, we eased students through the transition of introducing Assessment for Learning. Writing, reading, and re-reading my work to this point emphasize how difficult the transition must have been for some students. After several years in the school system, they were accustomed to a particular way of curriculum making. The introduction of Assessment for Learning changed the curriculum making.

Inconsistency

Each teacher's personal practical knowledge led to a variety of strategies to introduce and adapt to Assessment for Learning. Students had to contend with the resulting inconsistencies. For instance, some of us introduced replacement exams. Although replacement exams resulted in extra work for students, they welcomed the opportunities to improve their marks. A significant number of staff members did not initially offer replacement exams and students who had bought into the idea of replacement exams engaged the staff in negotiations. Some staff members were not ready to offer replacement exams, and so some tension emerged between staff and students. The staff-student tension extended to teacher-teacher tension. There is justification on both sides of the argument for and against replacement exams, which can be captured simply by answers to Why are you offering replacement exams? and Why are you not offering replacement exams?

The inconsistencies also resulted from the many different negotiations which were occurring simultaneously. Some teachers and their students were reconstructing teaching contracts in the classroom, some were discussing the progress of the reconstruction with colleagues during formal and informal PD sessions, and some others were negotiating PD time with administration for classroom visits to observe how the implementation was progressing for other teachers. Some teachers were simultaneously involved, to varying extents, in all three sets of negotiations.

I wonder what it must have been like for students as they traveled from classroom to classroom—one teacher just beginning implementation and the next teacher having fully implemented Assessment for Learning and the many stages in between. As we introduced Assessment for Learning, some of us explained what the changes would mean in the classroom, others went straight ahead, yet others adopted some intermediate strategy. Is it surprising that some of students baulked at the changes?

How did students perceive the changes? My observations and discussions with students and teachers told me that although some students were enthusiastic and welcomed the changes, others were mistrusting and apprehensive. What did I do to facilitate an easier transition for students who were mistrusting and apprehensive? One of the most important of the changes was student involvement.

For some students involvement was initially difficult. Monique and I related how we showed students how to become involved and how we modeled the appropriate behavior or, alternatively (and with a greater degree of success), we encouraged other students to model appropriate behavior. We improved feedback and created opportunities to work with students to show them how to use feedback to improve learning.

Roxanne, working with her colleagues in the English department, decided to spend almost a week of classes explaining to students what they were doing and then began by using No Zeroes and Second Chances. I began each new course by explaining the changes and the potential benefits to my students. I used peer assessment and peer coaching to reinforce my explanations and as ongoing strategies. Monique modified an existing practice and used peer coaching and peer teaching to introduce Assessment for Learning and as an ongoing strategy. In some ways it looked very similar to the peer assessment and peer coaching in my classroom. And in some ways it looked very different. I think we both benefited from our collaboration and the similarities and differences in our practices.

Anxiety, Then Success

Anxiety arose as Monique, Roxanne, and I aimed to strike a balance between content and coverage. We knew we were improving the content of our classes but we knew we had to provide appropriate coverage, particularly in our diploma classes. Although it was a struggle, we did strike a suitable balance. The evidence shows in the schools' test results. Over the 3 years, our school's course completion rates rose from 82%, to almost 98%. Our students' successes encouraged them to enroll in subsequent courses; as a result we needed additional staff. Our diploma exam results showed significant improvements; science marks rose from several percentage points below provincial average to a point where we matched or beat provincial averages. Additionally, the numbers of students achieving diploma exam success increased significantly. As well, the stories being told in our community featured our school as a viable alternative to other schools previously considered more attractive from both parents' and students' perspectives. Stories told by students revealed a pride in their achievements and in our school.

Why did our school's teachers and students experience such success? Based on Monique's, Roxanne's and my stories, I would respond in the following way. As Black and William (1998) indicated, the most important questions can only be answered by introducing and developing formative assessment in our classrooms. And that is what we did: Introduced, developed, and answered questions. What was most important, we did this collaboratively. Black and William (1998) also suggested: “Each teacher must find his or her own ways of incorporating the lessons and ideas … into his or her own patterns of classroom work and into the cultural norms and expectations of a particular school or community” (pp. 19-20). And that is also what we did. We took the strategies and ideas from our reading, from Ruth Sutton, and from observing our colleagues, and we blended it with our own personal practical knowledge.

As I wrote earlier, I believe our teachers and administration caused and experienced a shift in the professional knowledge landscape. And within that professional knowledge landscape, personal practical knowledge was recognized and acknowledged. Recognition and acknowledgement were present, to some extent, in our pre-Assessment for Learning professional knowledge landscape. What we did was to expand the recognition and acknowledgement. As well, we created spaces where we could more appropriately attend to each teacher’s personal practical knowledge. We placed more value on personal practical knowledge. We listened and learned as colleagues and students demonstrated and communicated their personal practical knowledge. And we helped students to do the same. Listen, observe and learn as others demonstrated their personal practical knowledge. We placed teacher and student knowledge at the centre of our professional knowledge landscape; we honoured that knowing and used it as a starting point to improve and develop our curriculum making. As improvements and developments occurred, teacher and student knowledge remained at the centre of our professional knowledge landscape.

Tensions

Yes, we were successful in introducing Assessment for Learning but the introduction and implementation were not without difficulties. Tensions arose from many different sources.

Tension One: Student Resistance

The first real tensions resulted from the resistance shown by some of our students. Why wouldn't they resist? They had to work harder because of the changes; they were being held more accountable for the work they did and they were being pushed into a learning environment that, for some, was distinctly uncomfortable. Some were being asked to change their outlook from that of an Entity Theorist with mostly performance goals to that of an Incremental Theorist with mostly learning goals—they were being asked to risk, with only their teachers' assurances that there was a safety net underneath.

Despite assurances and safety nets, some students persevered in resisting and persevered in practicing avoidance. For many, their objections to school began long before they came to us. For example Roxanne's 10-2 students:

> In order to enter that course (English 10-2), they have likely failed at least one core course, they may have failed more than one core subject, some kids in 10-2 have failed all of their core subjects in Grade 9. So, it is likely that they are not feeling too good about themselves or their learning when they enter 10-2 … they don't have a good relationship with school, they likely don't have a good

> relationship with teachers and many of them come to high school believing they are failures. (Personal communication, June, 2007)

Many students achieved success. Occasionally, even that success created tension. Travis was one of Roxanne's students. After much hounding he passed his course with a mark slightly in excess of 50%. In cases like this, tensions were diverted from the student-teacher relationship and absorbed by the teacher, causing internal struggle and self-questioning. Roxanne asked:

> If our kids pass with a 50, do they really have the skills necessary to go to the next level?
> Was Travis really demonstrating the skill or was he just doing the work in order to cross the finish line?
> Having been hounded so much, was he responding and being responsible or was it the teachers?
> At what point do we call "enough?" (Personal communication, June, 2007)

Roxanne's struggle was evident as she sought the point at which to call "enough" and shortly thereafter, she asked her colleagues:

> What are the options before we enter a zero? Can we do a make up day? Can they come in at lunch? Can we find an alternative assignment? Can we find pathways to success? Can we find roadblocks against failure? How can we communicate

> and instill responsibility and accountability? (Personal communication, June, 2007)

Clearly, Roxanne was not convinced that she had chosen the best route, she continued:

> Our students get their five credits, the school receives funding for the five credits and our completion rates look very good. But do they really have the skill or are they just kind of jumping through hoops? The other issues are the burden on teachers and the tension it creates within a school. (Personal communication, June, 2007)

Tension Two: Between Students and Teachers ... Among Teachers

What is the cost of the five credits, the funding, and good completion rates? The students who are just scraping through one course are likely to go to the next level unprepared. Clearly, this is a burden on the person who teaches the next level.

It is a future source of tension between teachers and students. Students are unprepared for the next level. Will they show their frustration as they try and cope with the next level? Yes. Who will bear the brunt of his frustration? It is almost certainly the teacher. It is also a source of tension between teachers, the teacher who pushed, pulled, and dragged the student to success and the receiving teacher. What is the alternative? Should the teacher engage in negotiations with administration? Should the teacher be more firm regarding the limiting lines? Should the teacher focus more on accountability and responsibility for learning rather than on the pass mark and five credits? If so, the number of total credits and percentage completion rates are reduced. Would this be a source of tension between teachers and administration? It is more than possible. And this all adds up to internal tension and struggle for a teacher. Which route to take?

In our classrooms, we sought to ease the tensions by using limiting lines and finish lines. In our research conversations, Monique, Roxanne, and I addressed the tensions and discussed limiting lines and finish lines. I asked, "Do we draw the line? Do we give our students another chance?" I could not provide a definitive answer. Monique asked more than once, "Where do we draw the line?" She partially answered her own question indicating that she strikes a balance. But, clearly, the source of her tensions still exists and, of course, the source of her tensions resonates as the source of our tensions:

> I think we have all been guilty of saying "OK, just one more chance; OK, just one more chance; OK, just one more chance." And we have to be careful not to draw too many lines. It's not a joke anymore when you tell a student or even imply to a student "this is the line, you had better not step over it; fine you stepped over that one, but here's another, you had better not step over that one." And on and on it goes. (Personal communication, June, 2007)

The three of us, Monique, Roxanne, and I, admitted to "OK, just one more chance; OK, just one more chance; OK, just one more chance." Why do we do that? That's an easy answer. We were and are concerned about our students; we care about them and we want to give them every chance to be successful. When we do cry, "Enough!" we are disengaging from the student-teacher relationship. If we are not in the relationship, we cannot guide our students, making it unlikely for them to be successful in that course or in that program. If we do maintain the relationship, are we being taken advantage of? When do students begin to take responsibility for their own learning? We haven't yet found the answer to the question, When does the achievement of short term success begin to inhibit the achievement of longer term success? The intent of our limiting lines and finishing lines is to ease tension by giving teachers and students guidance, to provide reference points along our journey, and to inform us when we have reached our destination. The lines have eased tensions, they are reference points, they do inform us where our destination is, and they do inform us of our arrival at our destination. But, in some instances, they result in an escalation of tension and they have led us (teachers and students) to ask, "Is that really where the reference point should be?" and "Can we legitimately say that this is our destination?" We know that the tensions will not disappear. They will erupt in our in-classroom places and our out-of-classroom places, sometimes they will lie dormant but they will never become extinct.

Tension Three: Getting Tired?

During the second and third years of Assessment for Learning, I began to see frustrations and tensions erupting from other sources. For Roxanne, the frustration began as she strove to continue her students' successes. In the second year, as the English 10-2 students became English 20-2 students, the teachers in the English department continued adapting assessment strategies to their particular classroom settings and continued supporting each other as they tried different strategies. Course completions improved, not as significantly as they did during the first year, but improved nonetheless. The year after, Roxanne decided to be a bit more ambitious. Her goal was to increase the number of kids achieving A and B grades. She based the work on the *Black Box* articles (Black & William, 1998; Black et al., 2004). I reported the results of the English department's efforts in chapters 8 and 9. Roxanne told me, "I called a halt and suggested that we leave our project alone and further suggested that we simply be active in doing Assessment for Learning in our classrooms. Whether the number of A and Bs went up, I have no idea" (Personal communication, June, 2007).

In addition to the failed project, Roxanne indicated that she created tension for herself. As the 10-2s became 20-2s, chasing students and making sure they completed assignments became the responsibility of the teachers in the English department. Some teachers had more success than others. Roxanne believed she should have monitored the situation more closely but she didn't have time. She suggested that she let herself down by not doing it.

I did not agree with Roxanne's comment that she let herself down. Together with the teachers in the English department, she was responsible for some remarkable improvements in student achievement. Her school-wide involvement in our PD, as we introduced Assessment for Learning, was one of the keys to students' improvements and successes. She was a frequent presenter at PD sessions at other schools and school districts. I am wondering if it might have been wiser to encourage her to continue her valuable work by maintaining a lighter instructional load.

Some disappointment crept into the third year of Assessment for Learning, particularly towards the end of the third year. Monique summarized the 3 years and captured one particular aspect of the disappointment teachers were feeling:

> The first year was good, we were learning a lot, working hard, and our leadership was enthusiastic and supportive. Second year, the learning continued, we were working even harder; our administration's support continued. Third year, there was a perception creeping into our school that there wasn't the same enthusiasm from our leadership. I don't know whether there was less pressure or less push from district to carry on or there was simply too much going on and too much to do. (Personal communication, June, 2007)

The disappointment deepened as the school moved into its final PD session of the year. Monique indicated: "We don't get many PD days and PD opportunities, so it's very disappointing when we get a PD day and the planning has not been all that it should be" (Personal communication, June, 2007). It was a frustrating exercise for us all. The goal appeared to be to cover a particular aspect of Assessment for Learning without regard for the quality of the coverage. There was no preparation time and no time afterwards for reflection. Monique was frustrated by the exercise:

> We went back to the pre-Assessment for Learning days. Really it was worse because we use to get some direction in those days; we were told exactly what we should be doing. I think someone should have had the courage to say "Look, do

> your own PD, you're responsible professionals, what do you want to do that day?" (Personal communication, June, 2007)

Much of what we did in Assessment for Learning was about learning from mistakes, Monique's hope was "we learn about the mistakes we make when we try and put together a PD day with little planning" (Personal communication, June, 2007). I found it interesting that two relatively minor incidents—a perception concerning administration's enthusiasm and a poor PD day—should begin to cast a shadow on 3 years of remarkable, collaborative achievements by students and teachers.

Monique, Roxanne, and I gained from experiencing tensions and discussing those tensions. I believe we could have gained even more by more frequent use of the bridges between teacher-teacher negotiations and collaboration and student-teacher negotiations. The experiences could have been used to a greater extent to inform and as a basis for negotiation, discussion, and collaboration around the teacher-teacher negotiating table, the goal being more consistency and comfort with respect to the answers to Roxanne's questions and to the easing of our tensions.

The puzzling will continue. Despite the struggles and the tensions, Roxanne and her colleagues met with success: "The good news was that we went from a 45% successful course completion rate to a 78% successful course completion rate" (Personal communication, June, 2007). Many of her students were persistent in practicing avoidance at the beginning of the year. Throughout the year, Roxanne and her colleagues became more persistent and firm in refusing to tolerate the avoidance. They chased students and offered extra classes, coaching and tutorials—they negotiated a way out of the Entity Theory approach adopted by many of their students. But, Roxanne indicated that a culture of few deadlines was created. She suggested that the next step is to strive to be consistent and reintroduce deadlines. What happens if we accept this suggestion and strive for consistency and introduce deadlines? Many of our concerns are voiced in Roxanne's questions:

> How do we do away with that culture? How do we introduce a culture where there are deadlines? How do we deal with the failures during the transition period? Do we return to the forty-five percent success rates? (Personal communication, June, 2007)

Still Puzzling

My research puzzle and my wondering began as soon as I began teaching. From the beginning, students were generous with their contributions to the puzzle. They showed me that there was something more that I could do in my classroom, something to do with their knowledge of learning, something to do with how they dealt with obstacles that appeared in their paths to success, how they learned from the occasional instances of failure and how they approached learning opportunities.

Leah and Karen forced me to think differently about my teaching and led me to an understanding of the part that student involvement played in my research puzzle. They showed me the benefits of student involvement and they also made me wonder how student involvement would work for a whole class and with students who were not as motivated as they were. Fahim and Rahim led me to wonder how different learning orientations would affect the desire for involvement. Walid and Ali gave me a sense of the importance of attending to collaboration in response to the puzzle. Aysha and Jasbir made me wonder why they crumbled at university after successful educational experiences at high school.

A deeper understanding of curriculum helped me to respond to the research puzzle. To have known more of my students' personal practical knowledge would have aided further. I knew I connected with some students but it wasn't enough. If students were to become more involved, there needed to be stronger connections. As I began to attend to students' personal practical knowledge, I found some students were reluctant to share and become involved. I realized there was a need to make my classroom a place where those students felt comfortable sharing and being involved. Assessment for Learning helped. It was compatible with my practice. It was about collaborative curriculum-making using students' and teachers' personal practical knowledge. It helped me to open the door wider to student involvement.

I began by finding out how to do Assessment for Learning, how it was developed and how I could tailor it to the needs of students. Dweck's (2000) work provided some insight. It helped me to explain the different orientations to learning, the difficulties that Rahim experienced during his transition to university, his desire to practice avoidance, and Jasbir's and Aysha's crumbling at university. It introduced me to the terms Incremental Theory and Entity Theory to describe orientations to learning and gave me the tools to recognize and words to describe instances when teachers pushed students towards one or the other theory. As it helped me to attend to parts of the puzzle, other pieces of puzzle were added. I wondered how I would push students towards an

Incremental Theory framework. I wondered what I was doing and what other teachers were doing that pushed students towards an Entity Theorist's approach.

Acceptance of Assessment for Learning needed a giant leap of faith by teachers and by students who had to be willing participants in order to achieve success. Initially, I wondered how district leadership would support and encourage teachers as they took that leap of faith. The support and encouragement came via a shift in the professional knowledge landscape, away from a traditional, hierarchical, and centralized place toward a more collaborative place. Staff meetings became PD sessions. Teachers were encouraged to collaborate, share perspectives on PD, and begin to negotiate a new curriculum for each of their classrooms. These were significant changes. I wondered if the changes would be sustained.

As I introduced Assessment for Learning, I found most students were accepting and enthusiastic about their involvement. Some students had to be guided to take more responsibility in collaborative curriculum making; they had to be shown how to participate.

Some tensions among staff, students, and administration accompanied the introduction of Assessment for Learning. The tensions were mainly a result of conflicts with notions of student responsibility and the extra work load for teachers. To add to the extra work, a number of students were placed in higher level courses for which they were unprepared. This was one of the outcomes from issues surrounding pass marks and recommended marks in prerequisite courses. The extra work caused by the misplacement of students led to added tensions among students, teachers, and administration. I wondered (and continue to wonder) how those tensions can be eased.

As Monique and Roxanne joined me in this research they added to the puzzle. I found their stories to be similar to and different from mine. Roxanne found success, tension, puzzles, disappointments, and frustrations as she introduced Assessment for Learning to her classroom and to her department. Monique's introduction to Assessment for Learning was a struggle. She found No Zeroes and Second Chances conflicted with her goal for students to take more responsibility for their own learning. She took advantage of the PD opportunities created as the professional knowledge landscape shifted and saw how students and teachers could benefit from Assessment for Learning. At the same time, she expressed a concern for students. During PD activities both students and teachers were losing the flow of their lessons. Although she saw the advantages of PD activities, she realized that they were disruptive. My research puzzle deepened as I wondered how PD activities could be maintained alongside a regular teaching schedule. In the third year of Assessment for Learning (the 2006-2007 school year), Monique noticed a waning of enthusiasm from administration. There was a sense of a return to the professional knowledge landscape that existed before the shift. I wondered how much energy had to be expended to maintain the shift. I continue to wonder how that enthusiasm can be rekindled.

We (Monique, Roxanne and I) were successful in introducing Assessment for Learning. Students were involved in their learning, they excelled in the safe environment of replacement exams, No Zeroes and Second Chances, they excelled in their diploma exams, and completion rates were higher than they had ever been. We found the shift in the professional knowledge landscape led to a new approach to PD that helped us to add to our personal practical knowledge, through collaboration with our colleagues, and contributed to the success of students. We were responding to some of the puzzle but we were not attending to the tensions and difficulties arising from teachers' work loads, time constraints, and inconsistencies surrounding limiting lines and finish lines.

It was frustrating and disappointing for the teachers in the English department and for Roxanne to call a halt to work that generated so much enthusiasm. I listened to their stories. I felt their disappointments and frustrations. I continue to wonder what the alternatives are to ending such valuable work. I continue to wonder how to sustain the improvements, positive atmosphere, and enthusiasm for projects such as the one involving coaching and classroom visits which Monique, Kiran, and Norma embarked upon. I continue to wonder how to maintain support for teachers and the PD activities which are so important to students' and teachers' successes. We (Monique, Roxanne and I) continue to puzzle about lines and the inconsistencies and tensions which surround them. We puzzle about where finish lines and limiting lines should be drawn.

REFERENCES

Alberta Assessment Consortium. (1999). *A framework for communicating student learning*. Edmonton, AB: Alberta Assessment Consortium

Alberta Assessment Consortium. (2000). *How to ... develop and use performance assessments in the classroom*. Edmonton, AB: Alberta Assessment Consortium

Alberta Assessment Consortium. (2001). *Smerging data: Grading ... more than just number crunching*. Edmonton, AB: Alberta Assessment Consortium

Alberta Assessment Consortium. (2005). *Refocus: Looking at assessment for learning.* Edmonton, AB: Alberta Assessment Consortium.

Ames, C. & Archer, J. (1988). Achievement goals in the classroom: Students' learning strategies and motivation processes. *Journal of Educational Psychology, 80(3)*

Aronson, J., Quinn, D. & Spencer, S. (1998). Stereotype threat and the academic underperformance of minority men and women. In J. Swim and C. Stangor (Eds) *Stigma: the target's perspective* (pp. 7979-811). New York: Academic Press.

Assessment Reform Group (2002a). *Testing, motivation and learning*. Cambridge, UK: Assessment Reform Group

Assessment Reform Group. (2002b). *Assessment for learning: 10 principles – research-based principles to guide classroom practice*. Cambridge, UK: Assessment Reform Group

Azzam, A. (2007). Why students drop out. *Educational Leadership 64 (7)*.

Bateson, M.C. (1989). *Composing a life*. New York: Grove Press.

Bauer, S. (1996). Asperger syndrome. Retrieved October, 2006, from http://www.udel.edu /bkirby/asperger/as_thru_years.html

Beach, D.M. & Reinhartz, J. (2000). *Supervisory leadership: Focus on instruction.* Needham Heights, Massachusetts: Allyn and Bacon

Black, P. Harrison, C. Lee, C. Marshall, B. & William, D. (2004). Working inside the black box: assessment for learning in the classroom. *Phi Delta Kappan,* September, 2004.

Black, P., Harrison, C., Lee, C., Marshall, B. & William, D. (2003). *Assessment for learning: Putting it into practice*. Berkshire, UK: Open University Press

Black, P. & William, D. (1998). Inside the black box: Raising standards through classroom assessment. *Phi Delta Kappan*. October, 1998.

Black, S., (2003). Keeping kids from dropping out. *Education Digest 68 (5)*.

Brighton and Hove Local Education Authority (2003). *Questions worth asking*. Brighton, UK: Brighton and Hove Local Education Authority.

Brown, A.L., Palincsar, A.S. & Purcell, L. (1985). Poor readers: Teach, don't label. In U. Neisser (Ed.) *The academic performance of minority children: A new perspective* (pp. 105-143). Hillsdale, NJ: Erlbaum.

Butler, R. (1988). Enhancing and undermining intrinsic motivation: The effects of task-involving and ego-involving evaluation on interest and performance. *British Journal of Educational Psychology (58)*. 1-14.

Carter. K. (1993). The place of story in the study of teaching and teacher education. *Educational Researcher 22(1) 5-12*.

Clandinin, D.J. & Connelly, F.M. (1996). Teachers' professional knowledge landscapes: Teacher stories-stories of teachers-school stories-stories of schools. *Educational Researcher 25(3) 24-30.*

Clandinin, D.J. & Connelly, F.M. (1998). Stories to live by: Understandings of school reform. *Curriculum Inquiry 28(2),* 149-164.

Clandinin, D.J. & Connelly, F.M. (2000). *Narrative inquiry: Experience and story in qualitative research.* San Francisco: Jossey-Bass

Clarke, P. Owens, T. & Sutton, R. (2006). *Creating independent students learners: A practical guide to assessment for learning.* Winnipeg, MB: Portage and Main Press.

Clarke, S. (2005). *Formative assessment in the secondary classroom*. Hodder: London.

Coles, R. (1989). *The call of stories: Teaching and the moral imagination*. Boston: Houghton Mifflin.

Connelly, F.M. & Clandinin, D.J. (1988). *Teachers as curriculum planners: narratives of experience*. Toronto: OISE Press.

Connelly, F.M. & Clandinin, D.J. (1988). Studying teachers' knowledge of classrooms: Collaborative research, ethics and the negotiation of narrative. *The Journal of Educational Thought* 22 2(A) 269-282.

Connelly, F.M. & Clandinin, D.J. (1990). Stories of experience and narrative inquiry. *Educational Researcher 19(5) 2-14.*

Costa, A.L. & Kallick, B. (1993). Through the lens of a critical friend. *Educational Leadership*, 15 (2) 49-51.

Damon, W. (1995). *Greater expectations: Overcoming the culture of indulgence in America's homes and schools*. New York: Free Press.

Dassa, C., Vazquez-Abad, J. & Ajar, D. (1993). Formative assessment in a classroom setting: From practice to computer innovations. *Alberta Journal of Educational Research (39),* 111

Daugherty, R. (1995). *National curriculum assessment: A review of policy, 1987-1994.* London: Falmer Press

Davies, A. (2000). *Making classroom assessment work.* Courtenay, BC: Connections Publishing.

DuFour, R. & Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement.* Reston, VA: ASCD

Dweck, C.S. (2000). *Self-theories: Their role in motivation, personality and development.* Philapelphia: Psychology Press.

Dweck, C.S. & Elliott, E.S. (1983). Achievement motivation. In Mussen, P.H. (Ed) *Handbook of child psychology.* New York: Wiley

Dweck, C.S. & Leggett, E.L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review , 95*, 256-273.

Elbow, P. (1986). *Embracing Contraries: Explorations in Learning and Teaching.* New York: Oxford UP.

Elliot, A.J. & Dweck, C.S. (2005). *Handbook of competence and motivation.* New York: The Guildford Press

Epstein, S. (1990). Cognitive-experiential self theory. In L. Pervin (Ed) *Handbook of personality: Theory and research.* (pp. 159-184) New York: Guildford.

Fine, M. (1987). Silencing in public schools. *Language Arts, 64, 2.*

Finnan, C. & Chasin, G. (2007). Accelerating the learning of low achieving students: The transformation of a drop-out. *Phi Delta Kappan.* 625-629

Frith, U. (1991). *Autism and Asperger Syndrome.* Cambridge, UK:Cambridge University Press.

Fullan, M. (1997). Emotion and hope: Constructive concepts for complex times. In A. Hargreaves (Ed.) *Rethinking educational change with heart and mind.* (pp. 14-33). Alexandria, VA: Association for Supervision on Curriculum Development.

Fullan, M. (1999). *Change forces: The sequel.* London: Falmer Press

Fullan, M. (2001). *Leading in a culture of change.* San Francisco: Jossey-Bass.

Gagnon, E. & Myles, B.S. (1999). *This is Asperger Syndrome.* Cambridge, UK: Cambridge University Press.

Ghaziuddin, M. (2002). Asperger Syndrome: Associated psychiatric and medical conditions. *Focus on Autism and Other Developmental Disabilities 17 (3) 138-145.*

Gordon, S., & Reese, M. (1997). High stakes testing: Worth the price? *Journal of School Leadership (7)* 345-368.

Green, D. (1999). *Growing up with NLD.* Albuquerque, NM: Silicon heights.

Greene, M. (1995). *Releasing the imagination: Essays on education, the arts and social change*. San Francisco: Jossey-Bass.

Guskey, T.R. (2003). How classroom assessments improve learning. *Educational Leadership, February 2003.*

Harlen, W. & Winter, J. (2004). The development of assessment for learning: learning from the case of science and mathematics. *Language Testing 21 (3)*. 390-408.

Heckhausen, J. & Dweck, C.S. (1998). *Motivation and self-regulation across the lifespan*. Cambridge: Cambridge University Press.

Henderson, V. & Dweck, C.S. (1990). Achievement and motivation in adolescence: A new model and data. In S. Feldman and G. Elliott (Eds,). *At the threshold: The developing adolescent*. (pp. 308-329) Cambridge, MA: Harvard University Press.

Hong, Y.Y., Chiu, C. & Dweck, C.S. (1995). Implicit theories of intelligence: Reconsidering the role of confidence in achievement motivation. In M. Kernis (Ed.), *Efficacy, agency and self esteem*. (pp. 197-216) New York: Plenum.

Howard, J. (1995). You can't get there from here: The need for a new logic in education reform. *Proceedings of the American Academy of Arts and Sciences, 124*. 85-92.

Huber, J. & Whelan, K. (1996). Knowledge communities in the classroom. From Clandinin, D.J. & Connelly, F.M. (Eds) *Teachers' Professional Knowledge Landscapes*. New York: Teachers College Press.

Johnston, P., Guice, S., Baker, K., Malone, J. & Michelson, N. (1995). Assessment of teaching and learning in literature-based classrooms. *Teaching and Teacher Education, 11 (4)*. 359-371.

Lambert, L. (1998). *Building leadership capacity in schools*. Alexandria, VA: ASCD.

Lee, V. E. & Burkham, D. T. (2003). Dropping out of high school: The role of school organization and structure. *American Educational Research Journal, 40*. 353-393.

MacDonald, I., Litchfield, K. & Litchfield, J. (2001). School preparation for tertiary study. [research paper posted on the world wide web] retrieved 9th January, 2005 from the World Wide Web: http://www.adm.monash.edu.au/transiton/research/macdonald-etal.html

National Commission on Teaching. (1996). *What matters most: Teaching for America's future*. New York: NCT.

Neill, M. (1997). Transforming student assessment. *Phi Delta Kappan, September, 1997.*

Noddings, N. (1986). Fidelity in Teaching, Teacher Education, and Research. *Harvard Educational Review* 56. 496-510.

OFSTED (1996). *Subjects and standards: Issues for school development arising from OFSTED inspection findings 1994-5: Key Stages 3 and 4 and Post-16*. London: HMSO.

Paley, V.G. (1990). *The boy who would be a helicopter: The uses of storytelling in the classroom*. Cambridge, MA: Harvard University Press.

Paris, S., Lawton, T., Turner, J. & Roth, J. (1991). A developmental perspective on standardized achievement testing. *Educational Researcher (20)*. 12-40

Perrenoud, P. (1991). Towards a pragmatic approach to formative evaluation. In Penelope Weston (ed.) *Assessment of pupils' achievement: Motivation and school success*. (p. 92) Amsterdam: Swets and Zeitlinger.

Perry, N. (1998). Young children's self-regulated learning and contexts that support it. *Journal of Educational Psychology (90)*. 715-729.

Pollard, A., Triggs, P., Broadfoot, P., McNess, E. & Osborn, M. (2000). *What pupils say: Changing policy and practice in primary education*. London: Continuum

Raymond, H. (2002). *A narrative inquiry into mothers' experiences of securing inclusive education*. Edmonton, Alberta: University of Alberta.

Sadler, R. (1989). Formative assessment and the design of instructional systems. *Instructional Science (18)* 119-144.

Safran, J.S. & Safran, S.P. (2001). School-based consultation for Asperger syndrome. *Journal of Educational and Psychological Consultation 12 (4) 385-395.*

Seligman, M.E., Reivich, K., Jaycox, L. & Gilham, J. (1995). *The optimistic child*. Boston, MA: Houghton Mifflin.

Sewall, I. (1996). *Blessed be the spirit that carries us from day to day*. A presentation to CRTED, University of Alberta.

Siegel, B. (1996). *The world of the autistic child: Understanding and treating autistic spectrum disorders*. Oxford, UK: Oxford University Press

Simpson, R.L. & Myles, B.S. (1998). Aggression among children and youth who have Asperger's Syndrome: A different population requiring different strategies. *Preventing School Failure 42 (4) 149-154.*

Stiggins, R.J. (2001). *Student-involved classroom assessment*. 3rd edition. Upper Saddle River, NJ: Merrill Prentice Hall.

Sutton, R. (2005). *Assessment for learning: Ten steps to heaven*. Edmonton Teachers' Conference.

Task Group on Assessment and Testing. (1988). *A report*. London: Department of Education and Science and the Welsh Office.

Wininger, S.R. & Norman, A.D. (2005). Teacher candidates' exposure to formative assessment in educational psychology textbooks: A content analysis. *Educational Assessment 10 (1)*. 19-37.

Yolen, J. (1991). *All those secrets of the world*. Little, Brown.